

**SANSKRIT SYNTAX
AND
THE GRAMMAR OF CASE**

SANSKRIT SYNTAX AND THE GRAMMÃR OF CASE

[*A Study in Transformational Generative Grammar*]

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To

My Teacher

Dr. N. V. Smith

PREFACE

This book is intended to provide an analysis of the syntactic structures of Sanskrit in terms of the case-grammar which has been suggested as a modification of the standard theory of the transformational generative grammar. Despite the appearance of an alternative proposal by Anderson (1971), the proposals, in regard to the the case-grammar, of Fillmore (up to 1971), have been accepted as the model of this analysis. The alternative proposal implies generalisations by way of reducing the number of case-categories to the extent of making the analysis uninteresting and less revealing at the deep level.

My intention in writing this work has been to analyse the syntactic structures of Sanskrit with a view to test the validity of the theoretical assumptions of the case-grammar, examine the methodology proposed therein and expose problems, if any.

Though no claim to originality is laid in regard to the theoretical base of this work the investigation does break a new ground with reference to the analysis of Sanskrit syntax. The chapters which discuss the case-categories (specially Locative, Extent, Path, Essive, Translative), NP-asti-NP constructions and Genitive constructions are particularly notable from this point of view. They interpret the syntactic structures of Sanskrit in a way that has not been attempted so extensively and intensively before and proposes to be stimulating in its own right. The traditional Sanskrit grammar limits the number of the case-categories to six. Once the dichotomy between the suffixation and the cases as semantically defined primitives, is accepted, this limitation becomes questionable. Besides, the vocative which has been left out of this analysis has a

claim to its acceptability as a distinct case-category (Kumar, 1976).

It will be gratifying to me, if this book provokes scholars to take interest in the case grammar for the description of the Indian languages. For all errors and imperfections that may remain, I am to blame.

To my teacher, Dr N V Smith, of the Department of Linguistics, University of London, my debt is incalculable. Without his teaching and guidance, it would not have been possible for me to get through the intricacies of the transformational generative grammar. This book is dedicated to him as a token of tribute from one of his pupils.

To my teachers in India and specially those in the Department of Phonetics and General Linguistics, School of Oriental and African Studies, London University: Prof R H Robins, Prof E J A Henderson, Prof C E Bazell, Dr R K Sprigg, Dr J E Buse, Mrs E M Whitley, Dr Mrs T Bynon, Mrs N Waterson, Dr D C Bennett, Miss R Kempson, from whose teaching I have benefited immensely, I express my gratitude.

I can mention the names of Prof D N Sharma, Vice Chancellor, Patna University and Dr R K Sharma, Vice Chancellor, K S D Sanskrit University, who have shaped and guided my academic interests, only with a profound sense of respect.

Thanks are due to the Commonwealth Scholarships Commission in the U K for the award of a Commonwealth Scholarship (1969-1972) which enabled me to complete the courses in linguistics in the University of London.

I am grateful to Dr K K Mandal, Vice Chancellor, Bihar University, whose interest in linguistic studies has added a new dimension to the academic life in the university, Dr L. P. Sinha, Pro-Vice Chancellor and Principal K. D. P.

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To Professor J Mishra and my other colleagues in the Department of Sanskrit in the University and its colleges, and in other departments, who have given an impetus to me by sharing my interest in linguistics, I am thankful

To my elders, friends and well-wishers in India and abroad, whose affection and good wishes have sustained me during the preparation of the book, I express my deep sense of gratitude

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I am grateful to Dr S S Prasad of the Department of Sanskrit, Bihar University, who has completed the difficult job of correcting the proofs and preparing the index so meticulously

To my parents and wife, I owe more than I can express

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Shri Surendra Bhargava, Proprietor, Shri C S Pandey, General Manager and other members of the staff of the Bhargava Bhushan Press deserve my sincere thanks for coping with this difficult publication so efficiently

KEY TO TRANSLITERATION

<i>Consonants</i>	<i>Velar Retroflex Palatal Dental Labial</i>				
Stops					
voiceless					
unaspirated	k	t	c	t	p
aspirated	kh	th	ch	th	ph
voiced					
unaspirated	g	d	j	d	b
aspirated	gh	ḍh	jh	dh	bh
Nasals	N	n	ñ	n	m
Fricatives	<i>Glottal</i>				
voiceless	h	ṣ	ś	s	—
voiced	h				
			<i>Labio dental</i>		
Frictionless continuant	—	r	y	v	—
Rolled	r				
Anusvāra	m				
Vowels		<i>Short</i>	<i>Long</i>		
Simple front	close	i	ī		
	half-open	e			
back	close	u	ū		
	half-close	o			
	open		a		
central	half open	a			
Diphthongs				ai	au

ABBREVIATIONS AND CONVENTIONS

A	Agentive
ab	ablative inflexion
acc	accusative inflexion
C	Case
Com	Comitative
Cop	Copula
D	Dative
d	dative inflexion
Es	Essive
Ext	Extent
F	Factitive
fem	feminine
G	Genitive construction
g	genitive inflexion
GO	Goal
I	Instrumental
i	instrumental inflexion
K	Case marker
L	Locative
l	locative inflexion
M	Modality
mas	masculine
[--mas --fem]	neuter
N	Noun
Nom	Nominalised
nom	nominative
NP	Noun Phrase
O	Objective
P	Proposition

PP	Post-Position
Pa	Path
PR	Prompter
pres	present
R	Receptive
Re	Result
S	Sentence
SO	Source
T	Translative
V	Verb
VP	Verb Phrase
$X \rightarrow Y$	X is rewritten as Y
$X = Y$	X is equal to Y
$X \neq Y$	X is not equal to Y
$X \Rightarrow Y$	X is transformed into Y
$X \nRightarrow Y$	X is not transformed into Y
(X)	X is an optional element
[X—]	X is a case in a case-frame
[X]	X contains the feature Y
+y	
[+Y]	Y is a positively marked feature
[—Y]	Y is a negatively specified feature
$\begin{Bmatrix} X \\ Y \end{Bmatrix}$	either X or Y is selected
$X \rightarrow Y/W-Z$	X is rewritten as Y in the environment following W and preceding Z
ϕ	Zero : absence of an element/constituent
Δ	abbreviation for a string dominated by a constituent X, where the detailed constituent-structure below X is not relevant
?	indicates doubt regarding acceptability.
*	indicates unacceptable construction

CONTENTS

	<i>Page</i>
Preface	vii
Key to Transliteration	x
Abbreviations and Conventions	xi-xii
Contents	xiii-xiv
Chapter I Introduction	1
I.1. Sanskrit language and the scope of the present study	1
I.1.1 Sanskrit language	1
I.1.2 Sanskrit language and the views of Indian grammarians	2
I.1.3 Sanskrit language and the views of western scholars	4
I.1.4 Indian and western scholars and linguists on Sanskrit syntax	5
I.1.5 scope of the present study	9
I.2.1. Theoretical assumptions of FCG	10
I.2.1.1. works of Fillmore	10
I.2.1.2. the notion of case	10
I.2.1.3. Fillmore's case-grammar	12
I.2.1.3.1. descriptive adequacy and FCG	13
I.2.1.3.2. centrality of syntax and covert categories in FCG	13
I.2.1.3.3. ordering and base-component in FCG	14
I.2.1.3.4. base-component and case in FCG	15
I.2.1.3.5. notation in FCG	18
I.2.1.4. summary of principles	21

	<i>Page</i>
1.2.1.5 IFCG as a frame-work for the present study	22
1.2.2. limitations of the present study	22
1.2.2.1 data of the present study	23
Chapter II Case-categories A, D, R, O, F, I, L, SO, GO, Ext, Pa	24
II.1 case-categories A, D, R	24
II.1.1. A, D distinguished as case-categories	24
II.1.2. R as a case-category distinguished from A/D	34
II.1.3. definitions of A, D, Experiencer as given by Fillmore	36
II.1.3.1 Experiencer as a case-category	37
II.1.3.2 Experiencer and D as defined by Fillmore compared with D, R as specified in II.1.1 and II.1.2	40
II.1.4 intentional and non-intentional involvement of an actant	41
II.2 case-categories O, F and cognate objects	43
II.2.1 case-category O	43
II.2.1.1 O defined	43
II.2.1.2 O in relation to different syntactic structures	47
II.2.1.3.1 sentences containing O and the process of passivisation with subjectivalisation	61
II.2.1.3.2 sentences not containing O and the process of passivisation with subjectivalisation	63

	<i>Page</i>
II 2 1 4	sentences with obligatory deletion of A/D and the process of passivisation in relation to O 67
II 2 2	F/Re and cognate objects 69
II 2 2 1	case category F/Re 69
II 2 2 2	justification of F and the status of cognate objects 70
II 2 2 3	F as a distinct case category further examined 77
II 3	case category I defined 79
II 3 1	I distinguished from A/D/R/O/F 83
II 3 2 1	process of subjectivisation and I 87
II 3 2 2	process of passivisation and I 90
II 3 3 1	NP's indicating natural forces and I 94
II 3 3 2	I as a complex structure 96
II 3 4	NP's indicating emotive states and I 97
II 3 5	NP's derived from complex structures and intentional/non intentional involvement of an actant 99
II 3 5 1	NP's derived from complex structures and I 99
II 3 5 2	I and Lakoff's position 105
II 3 5 3	intentional/non intentional involvement of an actant and I 108
II 4	case categories L, SO, GO, Ext, Pa 110
II 4 1	Sanskrit grammarians on case categories related to time/space 110

	<i>Page</i>
II 4 2	linguists on case-categories related to time/space 111
II 4 3	case-category in relation to the distinction between time and space 112
II 4 4	L as a case-category 114
II 4 4 1	L as a complex structure 116
II 4 4 2	L with different surface - realisations 117
II 4 4 3	L as the only case-category in a case frame and the process of subjectivisation 119
II 4 5	SO as a case category 120
II 4 5 1	SO and NP's with ablative inflexion 122
II 4 5 2	SO as a complex structure and equating SO and A in certain constructions 127
II 4 6	GO as a case category 130
II 4 6 1	GO with different surface-realisations related to semantic distinctions 132
II 4 6 2	GO and NP's with dative inflexion 133
II 4 7	Ext as a case-category 136
II 4 7 1	NP's derived from complex structures containing Ext 138
II 4 7 2	Ext with different surface realisations related to semantic distinctions 139
II 4 8	Pa as a case category 141
II 4 9	case-categories related to time/space and Fillmore's views thereon 142

	<i>Page</i>
Chapter III NP-asti-NP Constructions	145
III 1 Sanskrit grammarians and linguists on NP-asti-NP constructions	145
III 1 1 NP-asti-NP constructions and the case-category Es	148
III 1 2 T and Es	152
III 1 3 L and Es	156
III 1 4 GO and Es	156
III 1 5 Ext and Es	157
III 2 NP-asti-NP constructions and Fillmore	158
III 3 the status of copula in NP-asti NP-constructions	161
III 4 copula and the derivation of NP asti-NP constructions	165
III 5 process of nominalisation and NP asti-NP constructions	170
III 6 rules operating in the derivation of NP asti-NP constructions	189
Chapter IV Genitive Constructions	191
IV 1 Genitive construction and genitive inflexion	191
IV 2 Sanskrit grammarians on Genitive constructions	192
IV 3 types of Genitive constructions	194
IV 3 1 nominalisation and Genitive constructions	197
IV 3 1 1 derivation of Genitive constructions related to nominalisation	198

	<i>Page</i>
IV 3 2 Genitive constructions and alienable and inalienable re- lationships	214
IV 3 2 1 Fillmore's schema and aliena- ble and inalienable relation- ships	217
IV 3 2 1 1 Genitive constructions and inalienable relationship	217
IV 3 2 1 1 1 derivation of Genitive con- structions with inalienable relationship	219
IV 3 2 1 1 2 derivation of Genitive con- structions with inalienable relationship	221
IV 3 2 1 1 3 derivation of Genitive con- structions with inalienable relationship	227
IV 3 2 1 1 4 derivation of Genitive con- structions with inalienable relationship	230
IV 3 2 1 1 5 derivation of Genitive con- structions with inalienable relationship	240
IV 3 2 1 1 6 Genitive constructions con- taining directional indicator and inalienable relationship, and Ross's Performative analysis	241
IV 3 2 1 1 7 Genitive constructions with inalienable relationship and directional NP's	244

	<i>Page</i>
IV 3 2 2	schema for Genitive construction with inalienable relationship 246
IV 3 2 3	schema for Genitive construction with inalienable relationship and the notion of case 246
IV 3 2 4	Genitive construction with alienable relationship 247
Chapter V	Lexicon and Rules 255
V 1	lexicon in FCG, lexical entries for verbs and rules 255
V 1 1	lexicon in FCG 255
V 1 1 1	FCG and prior selection of V's, subject object relation 255
V 1 1 2	lexicon and frame features 256
V 1 1 3	specification of lexical entries 257
V 1 2	lexical entries for verbs and their case frames 258
V 1 3	rules Phrase Structure and Transformational 265
V 1 3 1	P S rules 265
V 1 3 2	T rules 266
Chapter VI	Conclusion 269
Bibliography	273
Index	281



I

INTRODUCTION

I. The study of linguistics, as it has developed since the publication of *Syntactic Structures* of N. Chomsky (in 1957), has made it imperative, to take a fresh look at Sanskrit syntax, and examine the validity of the theoretical assumptions and the methodology involved in the post-Chomskyan linguistics. There is an attempt, in this study, to discuss the nature of case-grammar as proposed by Fillmore¹ and to analyse, within its framework, the syntactic structures of Sanskrit.

I.1. This section deals with the following points : in I. 1. 1. reference is made to the Sanskrit language (the classical language), as distinguished from the Vedic language (or Vedic Sanskrit); in I. 1. 2. and I. 1. 3. the investigations and studies of the Sanskrit language and grammar by the Indian grammarians and the western scholars respectively, are referred to; the treatment of case in relation to syntax, is taken up briefly in I. 1. 4, and the scope of the present study is discussed in I. 1. 5. and I. 2. 2.

I. 1. 1. Interest in the Sanskrit language whose precise antiquity still remains unsettled,² was revived by the European scholars towards the end of the eighteenth century.³

1. Fillmore, C J., (1968a)

2. Burrow (1955, p. 31) assigns the period 1200-1300 B C. to the composition of the Rgveda which 'is not likely to be many centuries out, either one way or the other.' Winternitz (1927, pp. 290-310), on the other hand, mentions a period in the middle of the third millennium B C.

3. Burrow, T., (1955), p 6

The Sanskrit language spoken⁴ and understood today, is strictly the classical Sanskrit distinct from the language of the Vedic texts, which is called the Vedic Sanskrit or Vedic language. The classical Sanskrit language and the Vedic Sanskrit language are also referred to, as 'bhāṣā'⁵ and 'chandas'⁶ respectively. It is maintained that the structure of the Sanskrit language (henceforth classical Sanskrit will be mentioned as such) assumed rigidity, after Pāṇini,⁷ deviation from which could not be tolerated. Scholars hold the view that the Sanskrit language remains, even today, as fixed by Pāṇini's rules.⁸

I 1 2 The Sanskrit language has been studied in depth by the ancient Indian grammarians.⁹ The initial motivation was, most probably, the preservation of the sacred and ritual texts through oral tradition which made the study of phonetics imperative for them.

4 There are 2 460 speakers who accept Sanskrit as their mother tongue, according to the *Gazetteer of India* Vol I (1965), appendix VI.

5 Pāṇini's rules II 2 108, VI 1 62, IV 1 181, VI 3 20, VIII 2 93.

6 Pāṇini's rules I 2 36, 1 4 9, 20, 81, II 3 3 62. Cf. Staal, J. F., (1967), p. 18.

7 His grammatical treatise, *Aṣṭadhyāyī*, consists of about 4,000 rules (Pandeya (1938) lists 3982 rules). This work is assigned the period 700-600 B.C. by Goldstucker and Bhattacharya. Burrow (1955, p. 48) mentions 400 B.C. as the period of Pāṇini's work. Thus Pāṇini's work has variously been assigned to around 600 B.C. and around 300 B.C. (Robins, (1967), p. 137).

8 Burrow, T., (1955), p. 36.

9 For details see Belvalkar, S. K., (1915). Cf. Allen, W. S., (1953) p. 3. He quotes J. R. Firth 'without the Indian grammarians and phoneticians it is difficult to imagine our nineteenth century school of phonetics'.

'Niruktam', the etymological composition by Yāska,¹⁰ embodies the 'earliest systematic discussions on questions of grammar'¹⁰ This system of grammatical analysis reaches perfection in the hands of Pāṇini.¹¹ The grammarian Kātyāyana,¹² also known as the maker of notes (Vārttikakara), and Patañjali,¹³ the writer of the 'Mahā-bhaṣya' (the great commentary) follow after Pāṇini and subject his grammatical work to their scrutiny. There has been much controversy as to how Kātyāyana and Patañjali have assessed Pāṇini's work.¹⁴

The grammarians who followed the above trio, did not contribute to the grammatical system by way

- 10 Burrow, T., (1955), p 48 Cf Sarup, L., (1940), p 54 his period is mentioned between 700 B C—500 B C
- 11 Bloomfield, I., (1935), p 11 'one of the greatest monuments of human intelligence' 'it describes every syntactic usage of its author's speech'
- 12 His period is considered to be near about 350 B C Cf Belvalkar, S. K., (1915), pp 28-29
- 13 Scholars are definite that his period is second century B C (Burrow, T., (1955), p 49), cf Roberts, R. H., (1937), p 140, cf Belvalkar S. K., (1915), p 32)
- 14 Goldstucker, T., (1961), pp 119-121 'Kātyāyana does not leave the impression of an admirer or friend of Pāṇini, but that of an antagonist, often too, of an unfair antagonist'
- Patañjali often refutes the strictures of Kātyāyana and defends Pāṇini. Cf Kielhorn, F., (1876), p 52 Kātyāyana is a follower and judicious admirer of Pāṇini 'Patañjali has defended Pāṇini from some of the objections brought against him by Kātyāyana', but 'in many cases his criticism is much more thorough going and destructive than Kātyāyana's and Pāṇini has suffered more at his hands than at those of the Vārttikakara' (i.e. Kātyāyana)

of facts or methodology.¹⁵ The only exceptions appear to be Bhartṛhari and Vāmana Jayāditya. The work of the former¹⁶ is more concerned with the metaphysical aspects of grammatical analysis, and that of the latter¹⁷, the earliest commentary after Mahābhāṣya on Pāṇini's work, furnishes examples for each of Pāṇini's rules.¹⁸

The later grammarians are better to be regarded as commentators. Rāmacandra,¹⁹ the writer of the commentary 'Prakriyākaumudī', explains and rearranges Pāṇini's rules. His method is closely followed and improved upon by Bhaṭṭojidīkṣita,²⁰ the writer of the 'Siddhāntakaumudī'. The latter work has virtually ousted, for pedagogical purposes, Pāṇini's work from the curriculum.²¹

I 1.3 Among the western scholars²² who have taken up and encouraged the study of the Sanskrit language and its grammar, the first is Sir William Jones,²³ though Macdonell refers to two missionaries (1968, 1732) who were acquainted with the language.²⁴

The earliest Sanskrit grammars published in English include that of W. Carey (1806, Serampore) and of C

15 Burrow, T., (1955), p 50 they 'present the material contained in Pāṇini they contain little that is original'

16 Bhartṛhari (700 A.D.), (ed.) Abhyankar, K.V.

17 Vāmana Jayāditya, (650 A.D.), (ed.) Śāstari, S.D.D. 2nd Pt. K.P. Shukla (1955).

18 It may be noted that Pāṇini himself did not give examples for his rules. Cf. Misra, V.N., (1966), p 212.

19 His period is 1500 A.D., (Macdonell, 1911, p xi)

20 His period is 1700 A.D., (Macdonell, 1911, p xii)

21 Belvalkar, S.K., (1915), p 46, also Saxena B.R., (1951), p 14.

22 For details see Pedersen, H., (1931) and Lehmann W.P., (1967).

23 Jones, Sir William, (1786) 'the Third Anniversary Discourse on the Hindus' in Lehmann, W.P., (1967), pp 10-12.

24 Macdonell, A.A., (1911), p xiii.

Wilkins (1808, London) 'The three most notable figures among the Europeans are - (i) F Bopp, who was the first to attempt a comparative philological study of Sanskrit,²⁵ (ii) T Benfey, who investigated the language of both Vedic and epic texts,²⁵ and (iii) W. D. Whitney who was the first to write a historical grammar of Sanskrit by treating the Vedic language 'more fully and explaining from it the development of classical Sanskrit.'²⁶

I 1 4 The Indian grammarians and commentators, in their analysis of cases, more or less followed Pāṇini's rules which considered cases (kāraṇas) to be grammatical relations of underlying structures, and did not identify these with case-inflexions

However, the western scholars of the nineteenth century missed this point in their analysis of the Sanskrit language. The reason was that they followed the traditional approach in which case-inflexion was considered the fundamental criterion of distinction between noun and predicate (or verb) and the category of case became restricted to nominals. They described the different case-forms in relation to their uses.²⁷ The first to be different in his approach from the above, appears to be the English grammarian James Harris (eighteenth century)²⁸

25 Macdonell, A. A., (1911), p. xiv
Robins, R. H., (1967), p. 148

26 Pedersen, H., (1931), pp. 19-22, Macdonell, A. A., (1911) p. xiv,
Lehmann, W. P., (1967), pp. 38-45

27 Robins, R. H., (1967), pp. 26-35, 50-52, 59

28 Robins, R. H., (1967), p. 154, Harris advocates 'identification of those universal categories of grammar and relations', because 'the same function was served by case inflexions in Latin and by prepositions in English'

Thus, Wilson in his Sanskrit grammar, refers to eight cases, nominative, accusative, instrumental, dative, ablative, genitive, locative and vocative²⁹ Monier-Williams thinks that 'Sanskrit syntax, unlike that of Greek and Latin, offers fewer difficulties'³⁰ Perry devotes eight pages to nominal declension only, and mentions nothing about cases³¹ Edgren refers to cases and also to the 'function of cases' in a footnote³² According to Macdonell 'the absence in Sanskrit of the indirect construction is in itself a tolerably clear proof that the structure of complex sentences in Sanskrit must be far less involved than in Latin or Greek' He refers to eight cases and adds that 'the syntactic arrangement of the Sanskrit sentence is primitive and undeveloped, as compared with Greek and Latin'³³ Thus, all these scholars appear to identify case-inflection with cases, and, at best, they refer to uses or functions of the cases for which the most comprehensive analysis with extensive citations from the texts, appears to be that of Speijer³⁴

The Indian grammarians of the nineteenth and twentieth centuries follow, more or less, either the principles of the western traditional grammatical analysis or the system of the traditional Indian commentators³⁵

29 Wilson, H H , (1847), pp 377-402

30 Monier Williams , M , (1877), pp 354 361

31 Perry, E D (1885), pp 83 91

32 Edgren, H , (1885), p 37 (f n 90) he refers to eight cases, and in his treatment lays emphasis on morphology

33 Macdonell, A A , (1911), pp 178 209

34 Speijer, J B , (1886), pp 24 113

35 Taraporewala I J S , (1967), this contains his Wilson Philological lectures delivered at the Bombay University in 1937

Apte, V S , (1921)

Kale M R , (1918)

However, the period from the thirties of the present century, has witnessed a revival of interest in the work of Pāṇini, in the wake of advances both in theory and methodology of linguistic studies, and, consequently, scholars have better appreciation of the case-system in Sanskrit (an indication of which is given by Faddegon³⁶) as explicated through the rules of Pāṇini

Recently, linguists like Staal and Kiparsky, in their works, have re-analysed some aspects of Sanskrit syntax on the basis of the rules of Pāṇini

Staal has discussed word-order in Sanskrit which he accepts, on the basis of the works of ancient Indian grammarians, to be free³⁷, and advocates a word-order-free categorical component as a linguistic universal. The word-order in Sanskrit which Staal cites as support for having base-rules free from sequential ordering, has also been studied by scholars like Delbruck and Gonda who have analysed selected Sanskrit texts. Their studies, however, have ended as statistical assessments which reveal little significant about the word-order in Sanskrit.³⁸

36 Faddegon, B., (1936), p 18. Referring to Pāṇini's 'karaka' theory, he says: 'evidently Pāṇini tries, in this analysis, to separate the ideational aspect from the linguistic expression, an attempt which the occidental linguists of the latter half of the nineteenth century have condemned (he refers to the criticism of Whitney, etc.), misled as they were by the hope of being able to understand language through the exclusive study of its phonetic and morphological aspect, i.e., its articulative utterance and the association system underlying declension and conjugation, as if, the application and imitation of physics and a mechanistic psychology were the last word of moral science'

37 Staal, J. F., (1967), pp 16-50

38 As discussed in Staal (1967), p 59

Indian scholars, like Lahiri, also have undertaken such analyses, but their conclusions remain vague and, at best, maintain that the logical natural sequence of ideas is expressed in word-order³⁹. The possibilities of sequential ordering that such studies suggest, amount to 'saying xyz and yxz occur, but on the other hand, yxz, yzx and zyx also occur'⁴⁰

Due to this characteristic of free word-order in Sanskrit, F(illmore's) C(ase) G(rammar) commends itself as a framework for the analysis of Sanskrit syntactic structures. Because, as pointed out later (I 2 1 3), FCG does not assume a sequential ordering in the base component. As against FCG, Staal's proposal for a set system in the categorial component for making it universal⁴¹ (as opposed to Chomsky's concatenation-system), does not appear to be acceptable for Sanskrit. As Staal retains the constituency analysis (i.e. $S \rightarrow NP \widehat{VP}$), it is not clear how this VP is to be specified in Sanskrit unless some sort of word-order is implied. Since, for the analysis of a language like Sanskrit, the choice remains between EST (of Chomsky) and FCG, the one proposed by Staal does not appear to be acceptable⁴². Secondly, Staal appears to identify

39 Lahiri, P. C., (1933) p. 372. 'It is generally said that an inflectional language like Sanskrit is almost absolutely free in its word order, we have found that usually the word-order follows the thoughts as they occur to the mind of the speaker or writer. Their order is occasionally disturbed for special reasons mainly to lay emphasis on a particular word.'

40 Dover, K. J. (1960) p. 1.

41 Staal, J. F. (1967) pp. 60-90.

42 Cf. Seuren, P. A. M., (1969), pp. 173-174. He does not raise this point but questions Staal's position on some other ground. 'It has not appeared so far that an unordered nucleus expansion of the type proposed by Staal is useful or necessary for English, as opposed to languages with free word order.'

case with inflexion, as he postulates a rule such as NP \rightarrow {N, Num, Cas, (S)}⁴³, despite his acceptance that case (kāraḥ) – relation in Sanskrit is a deep grammatical relation. Thirdly, his treatment of Sanskrit syntax is confined to word-order only and does not go beyond the analysis of ten sentences. In view of these, Staal's framework and treatment of Sanskrit syntax appear to be highly inadequate.

Kiparsky, along with Staal, has investigated the syntactic semantic relations of Sanskrit as accounted for by Pāṇini's rules⁴⁴. But this treatment also appears to be inadequate for more than one reason. In the first instance, their treatment is not concerned with Sanskrit syntax in general, rather it shows to what extent Pāṇini's rules capture the generalisations of Sanskrit syntactic structures. Secondly, though it mentions genitive, it does not discuss genitive constructions. Thirdly, certain constructions which are discussed in chapters II, IV of this study, are not discussed by them. Thus, their analysis of Sanskrit syntax, covers a highly restricted ground.

I. 1. 5 The present study may, thus, be considered as the first attempt at an analysis of Sanskrit syntax within a transformational generative theoretical model. The study is carried on within the framework of FCG in view of FCG's characteristics as specified in I 2 1 3 2 and I 2 1 3 3.

No attempt is made, in this study, to present a comparative study of Pāṇini's 'kāraḥ'-theory and FCG⁴⁵. In fact, the cases of FCG and the kāraḥs need not be identified with each other, and, as such, this problem is considered beyond the scope of this study.

43. Staal, J. I., (1967), p. 65

44. Kiparsky, P. and J. I. Staal, (1969)

45. Anantharayaraj H. S., (1970)

I. 2. This section contains two parts : I. 2.

1. deals with the theoretical assumptions of Fillmore's case-grammar, and section I. 2. 2. refers to the scope of the present study.

I. 2. 1. In this section, it is proposed to present the theoretical assumptions of case-grammar proposed by Fillmore.

I. 2. 1. 1. The framework of FCG can be constructed on the basis of his undermentioned works :

1. 'A Proposal Concerning English Propositions' (1966a)
2. 'Towards a Modern Theory of Case' (1966b)
3. 'The Case for Case' (1968a)
4. 'Lexical Entries for Verbs' (1968b)
5. 'Types of Lexical Information' (1969)
6. 'The Grammar of Hitting and Breaking' (1970a)
7. 'Subjects, Speakers and Roles' (1970b)
8. 'Some Problems for Case-Grammar' (1971)

Of these, the third expounds FCG in detail and still remains the standard treatment, and the eighth sketches the present state of the theory, though regrettably in a very fragmentary manner, in the light of the inadequacies that have suggested themselves during the intervening period. However, it is assumed that the third and the eighth, between them, cover the exposition of FCG. The discussion in the succeeding chapters will be based on this exposition.

I. 2. 1. 2. The notion of case has been treated variously by grammarians and linguists, and equated with either

(i) 'semantic functions of inflexional affixes on nouns or the formal dependency relations which hold between specific nominal affixes and lexico-grammatical properties of neighbouring elements'; or (ii) 'a statement of the morpho-phonemic reflexes of a set of underlying syntactic relations which themselves are conceived independently of the notion of 'case'.'⁴⁶ In the first category, comes the description of case-systems of languages like Latin, Greek, and Sanskrit; and which have been accepted as the basis for the treatment of case-systems of other languages. In the second category, comes the treatment of case in some varieties of generative linguistics which identify 'case' with the inflexional realisation of particular syntactic relationships in the surface structure.⁴⁷ Some scholars have insisted on its being related to inflexion.⁴⁸

46 Fillmore, C J , (1968a), p. 2

47. Chomsky, N , (1965) : 'specified feature [case] is introduced by a rule that does not belong to the base sub-component of the syntax at all but rather to its transformational part' (p. 172), ... the features involved in the case-dimension are certainly added to a formative by rather late transformations (since case often depends on aspects of surface rather than deep structure' (p. 177), 'case is usually determined by the position of the noun in surface-structure rather than in deep-structure' (p. 221 f n 35). Cf. Lyons, J , (1966), p 218. 'Case (in the language in which this category is to be found) is not present in deep structure at all, but is merely the inflexional realisation of particular syntactic relationships.'

48 Cassidy, F. G , (1937), p 245 'Case will be properly used and will continue to have some meaning only if the association with inflexion be fully recognized.' Cf. Leininger, W. P. (1958), p. 167 . 'a particular case is nonexistent unless it is represented by forms which contrast in a system with others'

I. 2 1 3. Fillmore, on the other hand, agrees with Hjelmslev in not accepting case as an 'expression in the form of affixes on substantives'⁴⁹ and uses case to identify the underlying 'syntactic-semantic relationship' as a deep structure phenomenon in a natural language

For Chomsky, Fillmore's case-grammar as 'a semantically justified universal syntactic theory'⁵⁰ is not considered basically different from the earlier version of syntax as put forth in *Aspects* 'at the conceptual or theoretical level, but rather at the level of application to the particular grammar of English'⁵¹

Within transformational generative grammar, basically three assumptions about FCG are possible : (i) it presents a theoretically different grammatical description which meets both descriptive and explanatory adequacy, (ii) as an evaluation procedure⁷ it is to be preferred to other types of grammar for a natural language, (iii) it is a grammar which is specific to English. Chomsky has not argued that case-grammar is not applicable to other languages, and none of the linguists has given any argument to prove that case-grammar is language specific, and the plea that it is a 'choice of grammar'⁵² for English, is untenable. Of the remaining two assumptions, even if the second assumption is demonstrated to be correct, FCG makes a significant contribution. However, it will be examined below whether it meets the first assumption of descriptive adequacy or not.

49 Fillmore C J, (1968a), p 21, also Blake, F R, (1930), p 35, 'the term case form will be employed for case in its usual sense, while the term case will be reserved for the relationship, itself without regard to its means of expression'

50 Fillmore, C J, (1968 a), p 21

51. Chomsky N, (1970) p, 38

52 Chomsky, N, (1957), pp 50—53

I 2 1 3 1. A grammar is descriptively adequate to the 'extent that it correctly describes the intrinsic competence of the idealised native speaker'⁵³ Thus a descriptively adequate grammar is not concerned with a limited corpus, rather, it accounts for all the grammatical sentence-types as distinguished from utterance-types⁵⁴ which a speaker-hearer produces and understands on the basis of an 'internalised' system of rules. A grammar G_1 is more valuable than a grammar G_2 and reaches a higher degree of descriptive adequacy if it fulfils four conditions⁵⁵ (i) the rules (i.e. description) are so explicit and exact that there is no confusion with regard to what is generated and what is not generated, (ii) it gives only and all the combinations or strings of formatives which are sentences of a language, (iii) it has more generalisations and expresses them with a smaller set of rules. In other words, it is as simple as possible⁵⁶ A description may be called simple if it makes relevant generalisations and expresses regularities in the language concerned. If two descriptions reach the same level of generalisations, the description with the smaller set of rules and/or symbols is simpler, (iv) it is able to associate with a regular and straightforward semantic interpretation. Of these, the first two conditions are better left for verification when the description of the particular language is taken up. The remaining two conditions are fulfilled in FCG, as evident from the following discussion.

I 2 1 3 2 FCG assumes (i) the centrality of syntax wherein 'the forms of words (formatives) are specified with

53 Chomsky, N., (1965), p. 24

54 Seuren P. A. M., (1969) p. 2

55 Seuren P. A. M., (1969) p. 12

56 This condition of a grammar being 'simple', but non-trivial at the same time is difficult to be met

respect to syntactic concepts⁵⁷ and (ii) specifies the significance of 'covert categories' which exhibit the grammatical properties on the basis of 'selectional restrictions and transformational possibilities'⁵⁷ even if the grammatical properties are not morphemically realised FCG⁵⁸ accepts the distinction between deep structure and surface structure, and treats the base component (excluding the lexicon) as language-universal, and not as language-specific FCG assumes a base component as a 'semantically justified syntactic deep structure, not as a syntactic deep structure of Chomsky⁵⁹ It advocates that the grammatical notion case⁶⁰ deserves a place in the base-component of the grammar of every language⁶¹

I 2 1 3 3 FCG assumes a base component without any sequential ordering of items This is opposed to the concatenation-system of the standard theory which implies a sequential ordering in the base-structure⁶² Linguists have divergent views in this respect Halliday would favour a sequence free base component and Lyons would argue for leaving this question for empirical investigation⁶³ Agreeing with Lyons, even if the question

57 Fillmore, C J., (1968a), p 3

58 Fillmore, C J., (1968a) p 21

59 Fillmore C J., (1968a) p 38 Cf id (1971), p 245 FCG does not propose 'to eliminate deep structure altogether, but to find a level of syntactic structure which was deeper than that offered by the then standard theory'

60 Fillmore C J., (1971), p 245 'deep structure cases their existence could be discovered and justified by syntactic criteria' cf (1968a), p 5 'semantically relevant syntactic relationships'

61 Fillmore C J (1968) p 9

62 Chomsky N (1965) pp 124-127

63 Halliday, M A K., (1966), p 247

Lyons J., (1966), p 227

is left open in respect of natural languages in general, and we do not concede sequential ordering to surface-structure apart from 'stylistic inversion' (which Chomsky concedes to be a surface phenomenon), a sequence-free deep structure appears inevitable for languages like Sanskrit, Greek, Latin. In the case of languages like German and Russian, linguists have tried to show that some order in the deep structure needs to be accepted.⁶⁴

It appears that in order to meet the criterion of descriptive adequacy, a grammatical description of a language like Sanskrit, should have a deep structure free from word order phenomenon

I 2 1. 3 4 According to FCG, the base-component specifies that a sentence consists of two constituents M(odality) and P(roposition)⁶⁵ The M(odality) includes 'negation tense, mood and aspect.'⁶⁶ The P(roposition) is a 'tenseless set of relationships' involving a V(erb) and one or more N(oun)P(hrase)⁶⁷ The rela-

64 Chomsky, N, (1965), p 126
Ross, J R, (1970), pp 257-258

65 Fillmore, C J, (1968a), p 23

66 Fillmore C J, (1968a), p 23 Cf Loynes, J (1966), pp 218, 223 he regards negation, tense, mood as associated directly with the sentence as a whole, and the perfect and progressive aspects as features on the V Cf Robinson, J J, (1969), p 63 she brings in interrogation under M(odality), but removes negation and aspect from it

67 Fillmore, C J, (1968a), p 23 he later on (1971, pp 246-47) substitutes V with Predicate (verb, and adjective or noun). This revision in the constituents of P is unfortunate, as it is proposed without any discussion for or against In this study P as expanded above (1968a) is accepted

tionships that the NPs contract with the V, are realised as different C(ases) Rules (i) and (ii)⁶⁸ formalise this

$$(i) S \rightarrow M P^{69}$$

$$(ii) P \rightarrow V C_1 C_n$$

A C(ase) dominates an NP, K(asus) (case inflexion) and P(ost) P(osition), which can be indicated by a rule like (iii)⁷⁰

$$(iii) C \rightarrow NP -K (+PP)$$

Fillmore has postulated (1968a, 1969, 1971), the following C(ase)s with the semantically based definitions given

- 1 A(gentive) 'the case of the typically animate perceived instigator of the action identified by the verb' (1968a), p 24, 'the instigator of the event' (1969), p 116, 'the principal cause' (1961), p 253
- 2 D(ative) 'the case of the animate being affected by the state or action identified by the verb' (1968a), p 24
- 3 E(xperiencer) 'the entity which receives or accepts or experiences or undergoes the effects of an action' (1969), p 116, 'when there is a genuine psycholo

68 Fillmore C J (1968a) p 24

69 FCG proposes a notation like $X \rightarrow Y$ the arrow notation is used throughout but this should not be interpreted as meaning that the proposal for a case grammar requires an assumption of a left to-right orientation of the constituent symbols of the rewriting rules (Fillmore C J (1968a), p 24 (fn 20))

70 Fillmore C J (1968a) p 33 he proposes a rule like $C \rightarrow K + NP$ perhaps in view of the English language The PP occurring in certain constructions of Sanskrit imposes a specific realisation of K

gical event or mental state verb, we have the experiencer"...(1971) p. 251.

4. I(nstrumental) : 'the case of inanimate force or object causally involved in the action or state identified by the verb' (1968a), p 24, 'the case of the immediate cause of an event, or, in the case of a psychological predicator, the stimulus, the thing reacted to' (1971), p. 251; 'the stimulus or immediate physical cause of an event' (1969), p 116.
- 5 Counter-agent : 'the force or resistance against which the action is carried out' (1969), p 116.
- 6 F(active) : 'the case of object or being resulting from the action or state identified by the verb, or understood as a part of the meaning of the verb' (1968a), p 25.
- R(esult) : 'the entity that comes into existence as a result of the action' (1969), p 116.
7. O(bjective) : 'the semantically most neutral case, the case of anything representable by a noun whose role in the action or state is identified by the semantic interpretation of the verb itself; conceivably the concept should be limited to things which are affected by the action or state identified by the verb. The term is not to be confused with the notion of direct object, nor with the name of the surface case synonymous with accusative' (1968a), p 25,

'the entity that moves or changes or whose position or existence is in consideration' (1969), p 116, 'the Object case is that of the entity which moves or which undergoes changes, a waste-basket, sentences embedded to Objects can serve to identify the content of a psychological event as with the verbs of judging or imagining' (1971), p 251

- 8 L(ocative) 'the case which identifies the location or spatial orientation of the state or action identified by the verb' (1968a), p 25
- 9 SO(urce) 'the place from which something moves' (1969), p 116,
'starting point' (1971), p 259
- 10 GO(al) 'the place to which something moves' (1969), pp 116,
'the destination' (1971), p 259

Fillmore has suggested additional cases like (i) Com(itative) (1968a, pp 81-83), (ii) B(enefactive) (1968a, p 32), (iii) T(ime) (1968a, p 32), (iv) Ls(sive) (1968a, p 84), (v) I(ranslative) (1968a, p 84), (vi) Pa(th) (1971, pp 259-260), and possibly (vii) Ext (1971, p 260 ff)

No attempt is made, here, to assess the justifiability or validity of one or all of the cases mentioned above. This question is taken up in the sections concerned with specific case categories.

1 2 1 3 5 Of the cases, A, D, O, F, I, L, SO, GO, Ext, Pa, Ls, T are postulated in the succeeding chapters. The case category R(eceptive) is introduced. The status of

Com (itative) is not examined, as it is linked up with coordination. Other case-categories are discussed, but not retained ⁷¹

Now, for the present study, the Phrase Structure rules (1, 11 above) can be restated as follow

$$(i) S \rightarrow M P$$

$$(ii) P \rightarrow V C_1 C_n$$

where C_i = one of A, D, R, O, F, I, L, SO,
GO, Ext, Pa, Es, T

FCG maintains that the case frame(s) of a verb indicate(s) the relationship(s) in the form of cases that contract between the NP(s) and the V. Thus, a verb like 'pathati' (reads) has a case-frame like

$$\text{pathati} + [A, (I), O(L) -]$$

The dash indicates the place where the verb occurs, the symbols to the right of it, show the cases that can co occur with the verb. The parentheses indicate optionality. The symbol '+' in front of the square brackets, indicates that the frame feature is positively specified with regard to the lexical item 'pathati'.

According to FCG, the relationship obtaining between a V and the associated NP's in deep structure remains the same, irrespective of the final position of these NP's in surface structure. Thus, the case frame of the verb 'open', to take an example from English, is as follows

$$\text{Open} + [- O, (A), (I)]$$

$$(i) \text{ the door opened}$$

O

71 The case category Counter agent (I 134) is excluded from this discussion. Because Fillmore does not discuss it (1969), and he appears to have rejected it later on.

(ii) he opened the door

A O

(iii) the key opened the door

I O

(iv) he opened the door with the key

A O I

[Similar examples can be cited from other languages like Sanskrit -

bālah—pustakam-pathati

A

bālahena —pustakam —pathyate]

A O

In addition to the categorial component,⁷² the base-component of FCG comprises a lexicon. As regards the selection of lexical items, FCG proposes that the selection of the verb should precede the selection of other lexical items.⁷³ Secondly, FCG maintains that subject-object relations are surface-phenomena.⁷⁴ Consequently, there does not appear to be any need to distinguish between strict sub-categorisation rules and selectional restrictions.⁷⁵ As a result of these, the lexicon assumes a less complex form.

Besides, FCG proposes that one case-category occurs only once in a simple sentence, and occurrences of the same case-category can be conjoined in relation to a single verb.⁷⁶ In so far as the sentence-embedding is concerned,

72 For Phrase Structure rules see V 3

73 For the details see V 1

74 Cf. Chomsky, N., (1965), pp. 95, 113

75 Fillmore, C. J., (1968a), p. 21. 'although there can be compound instances of a single case (through noun phrase conjunction), each case relationship occurs only once in a simple sentence.'

FCG makes a change in its earlier position⁷⁶ and proposes that embedded S is dominated by some case-category.⁷⁷

I 2 1.4 In sum, the FCG which, according to its proponent, 'should be incorporated into the theory of transformational grammar',⁷⁸ lays down the following principles for description

- (i) Case-systems are universal⁷⁹
- (ii) Cases are semantically justified syntactic primitives⁸⁰
- (iii) 'Case-form'⁸¹ or 'surface-cases'⁸² are language specific and may be realised by inflexion, pre-/post-positions, and other 'syntactic function indicators'⁸² like word-order.
- (iv) In a simple sentence, one case-relationship occurs *only once*⁸³
- (v) Relations of subject and object are surface phenomena⁸⁴
- (vi) Only noun-phrases representing the same case can be conjoined with a single verb

76 Fillmore, C J, (1968a) p 32 'complex sentences involve recursion through the category S(entence) under the case category Objective'

77 Fillmore, C J, (1971), p 247

78 Fillmore, C J, (1971), p 245

79 Fillmore C J, (1971), p 247 'the cases identify the roles defined once and for all for human languages'

80 Fillmore, C J, (1968a) p 5, (1971), p 245

81 Fillmore, C J, (1968a), p 21

82 Fillmore, C J, (1971), p 47

83 Fillmore, C J, (1971), p 248 'one instance per-clause-principle'

84 Fillmore, C J, (1968a), p 32 (1971), p 247

- (vii) Sentences 'embedded in underlying representation are embedded as occupants of some case-role'⁸⁵

I 2 1 5 FCG as specified, in brief, above, may need refinements and a detailed formulation of its rules both universal and language specific ones. Its application to the analysis of natural languages may bring out imperfections which need to be rectified. In fact, Fillmore is aware of these possibilities⁸⁶. Despite these reservations, FCG stands as a sufficiently detailed working hypothesis for empirical research to attempt a validation of its major claims. The present study is an attempt to test the adequacy of FCG by applying it to the case of Sanskrit.

I 2 2 The following limitations have been imposed on this study

- (i) The first relates to case specification. Sentences with metaphorical and suggestive interpretations are excluded from this study.
- (ii) Secondly, in addition to the above types of sentences, those containing negation have been left out.
- (iii) Thirdly, the intonational pattern of the sentences has been ignored. The study of intonational pattern of Sanskrit sentences requires separate treatment. Moreover, the intonation of the speakers of Sanskrit may largely be influenced by the intonation-pattern of the modern Indian languages which are, in most cases their first languages. Besides, the study of accent in Sanskrit has been confined to the Vedic texts and is purely academic, and thus it has no relevance for the classical Sanskrit.
- (iv) Lastly, only simple sentences, as a general rule, are analysed in this study. A departure from this is made in

85 Fillmore C J (1971) p 247

86 Fillmore C J (1968a) p 88, (1971) p 246

the case of *genitive constructions* and *NP-asti-NP* constructions wherein the process of nominalisation is involved. However, this departure is undertaken, more with a view to illustrating the points under consideration in simple sentences, than to explicating the characteristics of complex sentences.

I 2. 2. 1 The data that are discussed in this study, are not based on some particular texts, but on the knowledge of the classical texts of grammar and literature which I have acquired during the past years as a student of Sanskrit. It is an attempt to analyse the principles or rules which underlie Sanskrit syntactic structures and which are internalised by a *speaker-hearer of the language*. Thus, this study is a 'formal account of competence' and makes 'no direct commitment vis-a vis performance'⁸⁷. It is hoped that this study, in the sense of 'formal account of competence' would, given any particular sentence, spell out precisely the processes involved in its generation.

Though, it cannot be claimed that this study exhausts the analysis of all possible simple syntactic structures in Sanskrit, it may reasonably be maintained that it does not exclude any structure which may materially affect the theoretical assumptions.

Lastly, this study is concerned with the Sanskrit syntactic structures, and not with the phonology⁸⁸ of Sanskrit. Besides, Sanskrit as spoken today in India, is influenced by the *phonetic/phonological pattern* of the speakers of different modern Indian languages. So, there does not appear any need for giving phonetic details. A systematic transcription may suffice for this study.

87 King, R. D., (1969), p. 12

88 Zwicky, A., (1965) for a treatment of the phonology within the framework of generative grammar

II

CASE-CATEGORIES

II In this chapter the case categories A(gentive), D (ative), R(eceptive), O(bjective), F(active), I(nstrumental), L(ocative), SO(urce), GO(al), Ext (ent), Pa(th) are discussed. Of these, R¹ is not mentioned by Fillmore.

It is proposed to discuss the case categories A, D, R in section II 1, O, F and Cognate Objects² in II 2, I in II 3, L, SO, GO, Ext, Pa in II 4.

II 1 In this section the case categories A, D, R are discussed and distinguished from each other. Recently, the case-category D has been replaced with Experiencer,³ but this substitution has not been followed by any discussion. So, the case-category D, rather than Experiencer, is retained for the reasons given in II 1 3 below.

II 1 1 If the arguments⁴ of a verb are case categories A and D⁵, these must be realised by NP's having the feature [+animate] as in sentences 1, 2. If the NP acting as the argument of a verb (even the same verb) is not animate, the case-category cannot be A/D, as in sentence 3.

1 Wilson, W. A. A. (1971), p. 75. It appears that the case-category R is mentioned, for the first time, in this thesis.

2 Fillmore, C. J., (1968a), pp. 85-86.

3 Fillmore, C. J., (1969), p. 116.

4 Fillmore, C. J., (1968b), p. 373. 'the objects concerning which a predicate asserts something are the arguments of that predicate'. The number of arguments is the number of nouns a verb requires in a syntactically complete expression. Cf. Fillmore, C. J., (1969), pp. 114-115.

5 Case-categories A, D, R are examined with reference to their definitions given by Fillmore in II 1 2 and II 1 3.

- | | | | |
|----|----------|---|---------------------|
| 1. | sevakah | — | patatī ⁶ |
| | A | | |
| | servant | — | falls |
| 2. | sevakah | — | mṛyate |
| | D | | |
| | servant | — | dies |
| 3. | pustakam | — | patatī |
| | O | | |
| | book | — | falls |

The case-categories A, D are distinguished from R as follows. Whereas the case-categories A and D may occur as the sole arguments of a verb, R (II.1.2) presupposes the presence of A/D in addition (to itself). Thus, sentences 4 and 5 are acceptable, but not 4' and 5'.

- | | | | | | | | |
|-----|--|---|------------|---|-----------|---|----------|
| 4. | guruh | — | dandena | — | chātram | — | tādayatī |
| | A | | I | | R | | |
| | teacher | — | with stick | — | student | — | beats |
| | (the teacher beats the student with a stick) | | | | | | |
| 5 | mātā | — | putram | — | cintayatī | | |
| | D | | R | | | | |
| | mother | — | son | — | worries | | |
| | (the mother worries about her son) | | | | | | |
| 4 * | dandah | — | chātram | — | tādayatī | | |
| | I | | R | | | | |
| | stick | — | student | — | beats | | |
| 5 * | dharmah | — | putram | — | cintayatī | | |
| | O | | R | | | | |
| | religion | — | son | — | worries | | |

6 The question of intentional or non intentional involvement of one or more of the participants in the events described by the verbs, is taken up in II 1.4 and II 3.5.3

When the case category A or D occurs in the case-frame of a verb in a simple sentence,⁷ it is subject, normally⁸, to a subjectivatisation-rule, and enters into concordial agreement with the V. The subjectivatisation-rule which selects A/D for agreement with the V, applies optionally. If case-category R/O/F/GO also occurs in a case-frame, in addition to A/D, and A/D is not selected for subjectivatisation, R/O/F/GO⁹ is selected for subjectivatisation. This fact is registered (i) in the form of adding the stem element 'ya' to the item under the V, (ii) in taking on the features (of [+number] and [+person]) of R/O/F/GO by the M, (iii) and by a difference in the inflection selected by M (i.e. an affix of the 'te'-class, rather than that of 'ti' class)¹⁰. This subjectivatisation of R/O/F/GO, in case A/D is not subjectivatised, will be referred to, henceforth, as the process of passivisation. If the case category R/O/F/GO does not occur in a case-frame, and the subjectivatisation-rule does not select A/D for subjectivatisation, no other case-category is selected for agreement with the V, as a general rule,¹¹ and this fact is registered in the operation of the process of passivisation with the difference that the M, invariably, takes on the features [+third] and [+singular]. This latter process

7 Sentences with the case category PR(ompter) in causative constructions are considered complex, and are not treated in this analysis.

8 Sentences with O/I/L selected by the subjectivatisation rule for agreement with the V, do not allow A/D in their case frames (II 2 I 2 II 4 3 3).

9 The subjectivatisation of GO is highly restricted (II 4 5).

10 In traditional Sanskrit grammar, the 'te' class and the 'ti' class affixes are referred to as 'ātmanepada' and 'parasmaipada' affixes respectively.

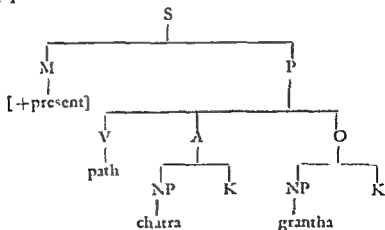
11 Exceptions are mentioned in the sections dealing with the case categories concerned.

will be referred to as passivisation without subjectivisation. Thus, a sentence like 6 corresponds to sentence 7, if Λ is not selected for concordial agreement with the V, and wherein the process of passivisation operates, and sentence 1 corresponds to sentence 8, in case the subjectivisation-rule does not select Λ , and, consequently, the process of passivisation without subjectivisation operates

- | | | | | | |
|---|-----------------------------------|---|----------|---|-----------|
| 6 | chātrah | — | grantham | — | pathati |
| | Λ nom | | O acc | | |
| | student | | book | | reads |
| | (the student reads a book) | | | | |
| 7 | chātrena | — | granthah | — | pathyate |
| | Λ 1 | | O nom | | |
| | by student | | book | | is read |
| | (the book is read by the student) | | | | |
| 8 | sevakena | — | patyate | | |
| | Λ 1 | | | | |
| | by servant | | | | is fallen |
| | (it) is fallen by the servant | | | | |

Sentences 6, 7 have the underlying structure (in relation to which P S rules¹² have already operated) as in figure 1

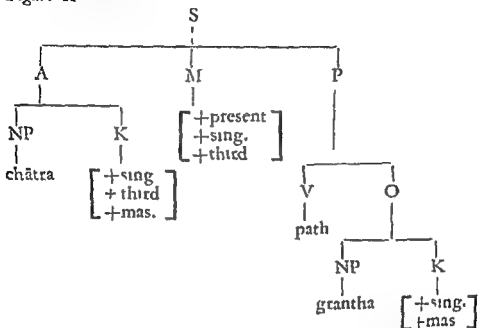
Figure 1



The subjectivalisation-rule¹³ applies and selects A for agreement with the V.

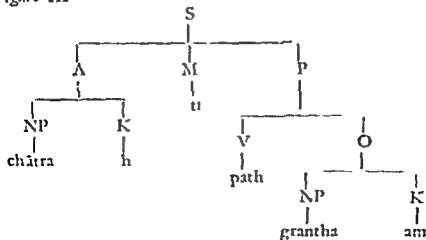
The result is as represented in Figure II.

Figure II



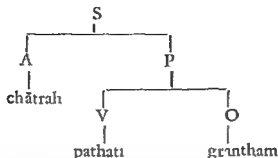
The affix-substitution rule applies and replaces features with affixes, with the result as in Figure III

Figure III



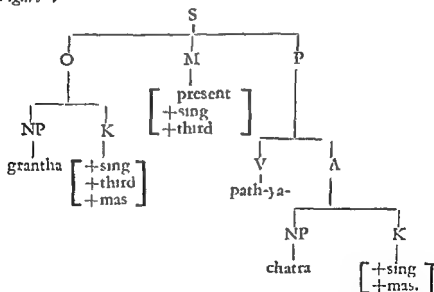
The final form (aside from scrambling),¹⁴ is as given in Figure IV

Figure IV



Alternatively, at the stage of Figure I, the subjectivisation rule does not select A, and, consequently, O is selected and the process of passivisation operates. The result is as in Figure V (from Figure I).

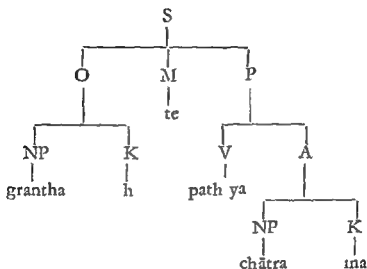
Figure V



14 Ross J R, (1970), pp 251-252 a scrambling rule 'optionally permutes major elements of a clause, subject to various conditions'. In this study this problem is ignored, and henceforth, no reference to it will be made. Also Ross, J R, (1967), pp 71-80, Lakoff R T (1968), pp 95, 103 (fn 9)

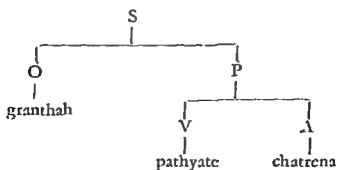
The affix-substitution rule applies and replaces features with affixes and the result is as in Figure VI

Figure VI



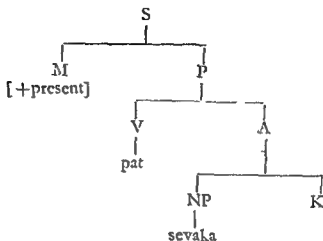
The final form is as in Figure VII

Figure VII



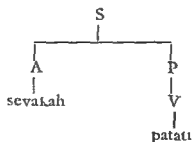
Sentences 1 and 2 have the underlying structure as in Figure VIII

Figure VIII



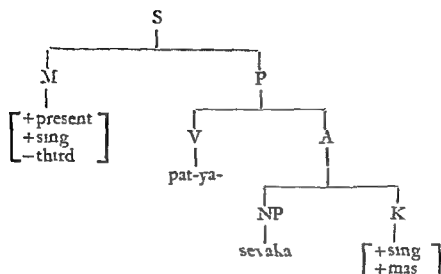
The subjectivisation-rule selects A for agreement with the V (as in Figure II), and the affix-substitution rule replaces features with affixes (as in Figure III), and the final form is as represented in Figure IX (omitting intervening details)

Figure IX



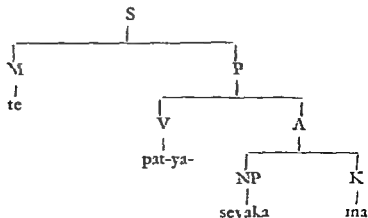
Alternatively, at the stage of Figure VIII, the subjectivisation rule does not apply, and the process of passivisation without subjectivisation operates. The result is as in Figure X (from Figure VIII)

Figure X



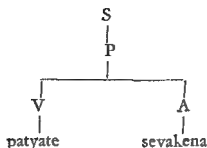
The affix-substitution rule applies and the result is as in Figure XI

Figure XI



The final form is as represented in Figure XII

Figure VII



It may be noted that the process of passivisation without subjectivatisation differs from the process of passivisation in that the M always selects (in the former case) the unmarked features [+sing], [+third], as is evident from sentences 9 -12'.

- | | | | |
|----|---------------------------------------|----------|------------|
| 9. | mūrkhāh | — | hasanti |
| | A nom | | |
| | fools | | laugh |
| 9. | mūrkhāh | — | hasyate |
| | A 1 | | |
| | by fools | — | is laughed |
| | ((it) is laughed by fools) | | |
| 10 | mūrkhah | — | hasati |
| | A nom | | |
| | fool | — | laughs |
| 10 | mūrkhena | — | hasyate |
| | A 1 | | |
| | by fool | — | is laughed |
| | ((it) is laughed by the fool) | | |
| 11 | bālāh | — śayane | — svapanti |
| | A nom | L 1 | |
| | girls | — in bed | — sleep |
| | (the girls sleep in bed) | | |
| 11 | bālābhīh | — śayane | — supyate |
| | A 1 | L stet | |
| | by girls | — in bed | — is slept |
| | ((it) is slept in bed by the girls) | | |

12. bālā — śayane — svapiti
 A nom L
 girl — in bed — sleeps
 (a girl sleeps in bed)
- 12'. bālayā — śayane — supyate
 A L
 by girl — in bed — is slept
 ((it) is slept in bed by the girl)

The case-category A is distinguished from D, as it occurs in a case-frame which is assigned to non-stative verbs. Non-stative verbs are those that may occur in reply to the query 'kim-karoti' (what does (x-do))¹⁵ Thus, the verb-forms in sentence 13 are non-stative, and have an A in their case-frames, and those in sentence 14 are stative and have a D in their case-frames

sa-kim-karoti	13	A	sa	—	{	pathati	(reads)	}
he-what-does			he			khelati	(plays)	
(what is he doing)						gāyati	(sings)	
						hasati	(laughs)	
sa-kim-karoti	14*		sa	—	{	jivati	(is alive)	}
						vidyate	(exists)	
						asti	(is)	
						bhavati	(becomes)	
						cintayati	(worries)	
						āste	(stays)	

It may be noted that sentences (14) are deviant only as replies to the relevant question

II I 2 In this section, R is distinguished from A and D. All these three case categories are assigned to arguments of a verb which are realised by NP's with the feature [+animate]

¹⁵ Thus, the case-categories A, D are distinguished from each other on syntactic criterion as well

It was mentioned above (II 1 1) that R presupposes the occurrence of A/D (cf sentences 4, 5) in its case-frame. This case-category is distinct from A/D, because, though the entity specified as R undergoes or accepts the effect of *an activity or state identified by the verb, it does not initiate it*. Fillmore has not postulated a case-category like R (fn 1). It may be that whatever is specified here as R, is subsumed under his D¹⁶, which would make possible the elimination of a case-category like R. Let it be accepted that R is not needed, and there is only D in addition to A. Now, consider sentences 2 and 4 above, wherein both 'sevakah' (in 2) and 'chātram' (in 4) are re-specified as D (rather D¹ and D² for convenience). The subjectivatisation-rule applies to the underlying structures of sentences 2, 4 and selects the D 'sevaka' (in 2) and the A 'guru' (in 4) for subjectivatisation. But, as mentioned earlier, subjectivatisation-rule operates optionally, and in case it does not apply, the D¹ 'sevaka' (in 2) does not enter into agreement with the V. Now, the problem is, how to account for this difference in syntactic behaviour of D¹ and D² (in 2, 4)? One may argue that D co-occurring with A (as in 4) must be subjectivatised, in case A is not subjectivatised. But, this does not solve the problem. Consider sentence 5. Even Fillmore's definitions (II 1 3) would specify 'mātā' (in 5) as D. Now, what case-category is to be assigned to 'putram'? It will be correct to assume that Fillmore would or will have to specify 'putram' as D (unless he invents another case-category). Apart from the fact that this occurrence of two Ds (in 5), in a simple sentence, goes against his principle of 'one-instance-per-clause',¹⁷ it creates another problem. How

16 For discussion see II 1 3

17 Fillmore, G. J., (1971), p. 248

to account for the fact that the subjectivalisation-rule selects 'mātā' (D¹) for agreement with the V, and in case D¹ is not subjectivalised, 'putram' (D²) necessarily enters into agreement with the V, with the consequential operation of the process of passivisation. To get round this problem, one may suggest that Fillmore would respecify D² ('putram') as O. But, this does not solve the problem. In II. 2.1.1 it is argued that there is need to distinguish R from O. Besides, this suggestion, if followed in a sentence like 15, would make the specification of case-categories problematic. What case-category is to be assigned to 'putram' in 15, O or D? Following the assignation of O to 'putram' in sentence 5, one would be inclined to specify 'putram' in 15 as O. The result is, again, the occurrence of two O's in one simple sentence, and the consequential problem of selecting one of the O's, in case the process of passivisation operates.

15. pitā — putram — dharmam — brūte
 A O O
 father — son — religion — speaks
 (the father speaks to his son about religion)

It is difficult to anticipate the solution that may be suggested by Fillmore. But, there appears to be sufficient justification for the case-category R as postulated in this section.

II. 1. 3. The three case-categories A, D, R have been distinguished above. Now, in the light of the above discussion (II. 1. 1., II. 1. 2), the definitions¹⁸ given by Fillmore with reference to A, D, E(xperiencer) are examined below.

The case-category A has been defined more or less consistently, and, in this analysis, the definition given

18. Fillmore, C. J., (1968a), p. 24; (1969), p. 116; (1971), pp. 251, 253.

in 'the Case for Case' (1968a)¹⁹ is accepted. As specified above, sentences 1, 4, 6-13, 15 contain the case-category A.

In so far as the case-category D²⁰ is concerned, there have been proposals to replace it with *Experiencer*.²¹ It is proposed to discuss *Experiencer* first (as defined by Fillmore f. n. 21), and, then, take up *Dative* (f. n. 20).

II. 1. 3.1. The case-category *Experiencer* is not defined explicitly enough to indicate which of the two NP's (in case there are two NP's in the case-frame) in relation to a psychological event or mental state verb, is to be specified as *Experiencer*. Consider a sentence like 5 above. The NP's 'mātā' (mother) and 'putram' (son) are both related to the verb 'cintayati'. However, it may be interpreted (in favour

19. Fillmore, C. J., (1968a), p. 24 'Agentive, the case of the typically animate perceived instigator of the action identified by the verb'. Cf. Fillmore, C. J., (1969), p. 116: 'Agent, the instigator of the event'. Cf. Fillmore, C. J., (1971), p. 253: "the principal cause" interpretation of the Agent case seems, for many sentences, to be quite adequate'.
The problem of NP's indicating natural phenomena is discussed in II. 3. 3. I

20. Fillmore, C. J., (1968a), p. 24: 'Dative, the case of the animate being affected by the state or action identified by the verb.'

21. Fillmore, C. J., (1969), p. 116: 'Experiencer, the entity which receives or accepts or experiences or undergoes the effects of an action (earlier called by me 'Dative')'. Cf. Fillmore, C. J., (1971), p. 251: 'I have reanalysed the old Dative by spreading it around among the other cases. Where there is a genuine psychological event or mental state verb, we have the Experiencer, where there is a non-psychological verb which indicates a change of state, such as one of dying or growing, we have the Object. Where there is a transfer or movement of something to a person, the receiver as destination is taken as the Goal.'

of the definition) that the NP which indicates initiation of the psychological event or mental state verb, is to be specified as Experiencer. Thus, 'mātā', and not 'putram', is Experiencer. So far, there appears to be no difference between the old Dative (f. n 20) or Dative as analysed above (II 1.1) and Experiencer except the terminological one. Now, consider sentences like 16, 17, wherein the case-categories, following Fillmore (f. n 21), have been specified as O, E

16	sohanah	—	mriyate
	O		dies
	s.	—	
17.	sohanah	—	glāyati / cintayati
	E		
	s.	—	feels weary / worries

Whatever process, psychological or non-psychological, may be involved in feeling weary or worrying or dying, the way the NP 'sohanah' is affected in 16, is not different from that in 17. In other words, if no external agency affects 'sohanah' in 17, so is the case in 16. Thus, there is no reason why the 'sohanah' in both 16 and 17 should not be specified either as E or O. In so far, as syntactic justification is concerned, there appears to be none. The subjectivatisation-rule applies to both (16, 17) optionally, and, in case O/E is not selected for agreement with the V, the process of passivisation without subjectivatisation operates in the case of both 16, 17 as is evident from 16, 17'.

16	sohanena	—	mriyate
	O ₁		
	by s	—	is died
	((it) is died by s)		
17.	sohanena	—	glāyate / cintayate
	E ₁		
	by s	—	is felt weary / is worried
	((it) is felt weary / worried by s)		

Again, take a sentence like 18, wherein Fillmore's definition of E, O(f n 21 (1971)) would lead to the postulation of two Os despite the explicit constraint against such a possibility

- 18 mātā — putram — pasyati
 O nom O acc
 mother son sees
 (the mother looks at her son)

lation to D and R as specified in II. 1. 1. and II. 1. 2. above. There are three possibilities : D (1968a) and /or E(1969) as defined by Fillmore (f.p. 20, 21), includes (i) both D and R or (ii) only D or (iii) only R, as explicated by me in II. 1. 1. and II. 1. 2. Whichever possibility is accepted, it indicates that D and R, as analysed above in II. 1. 1. and II. 1. 2., are established on different grounds. As specified in II. 1. 1. and II. 1. 2., D initiates a state identified by the verb (as opposed to A which is the initiator of an action identified by the verb), and R is the case affected by the state or action identified by the verb. As it has already been shown, D and R need to be distinguished from each other, and from A also, so there appears nothing to add on this point.

II. 1. 4. Before this section (II. 1) is concluded, one point needs to be considered. It has been suggested that there are sentences which indicate intentional or non-intentional involvement of an actant in the action identified by the verb. Now, the question is : should the NP specified as A, if there is non-intentional involvement, be rather considered a D ?

Consider sentences 1, 24-26.

- | | | | | | |
|-----|--|---|---------|---|----------------------|
| 24. | bālahah | — | pātrāni | — | bhanakti |
| | A | | O | | |
| | boy | — | pots | — | breaks |
| | (the boy breaks the pots) | | | | |
| 25. | bālahah | — | aṅgulīm | — | churikayā — chinatti |
| | A | | O | | I |
| | boy | — | finger | — | with knife — cuts |
| | (the boy cuts his finger with a knife) | | | | |
| 26. | rāmaḥ | — | viṣam | — | bhukte |
| | A | | O | | |
| | he | — | poison | — | eats |
| | (he takes poison) | | | | |

In all these sentences (1, 24-26), there may be an alternative interpretation which shows no intentional involvement of A. Now, one may argue that as the actant is non-intentionally involved in the action, the case-category should be specified as D rather than as A. It is possible to disambiguate such sentences by adding adverbials like 'sāvadhānam' (carefully) and 'nīpunam' (cleverly / skilfully). In case either of these adverbials occurs in sentences 1, 24-26, the interpretation would be always intentional, and the actant would be specified as A.

But, despite the above argument, there appears to be no need to make this distinction in case-specification. The use of adverbials simply brings out the intentionality or non-intentionality of the actant, and it does not make a non-stative verb a stative one, even conceptually. Consider sentences 25, 26 specially. Whether the action performed is intentional or non-intentional, there is no difference in the way it is performed. In fact, the vagueness in sentences 1, 24-26 may be attributed to our knowledge of the world i.e. we know that one would not normally perform an action like falling or cutting one's finger or swallowing poison.

Again, there are verbs like 'hasati' (laughs), 'likhati' (writes), 'yāti' (goes) which may involve intentional or non-intentional participation of an actant, but no one would like to suggest that the case-category may be either A or D in the context of these verbs. Besides, stative verbs like 'paśyati' (sees) and 'krśyati' (becomes lean) may involve intentionality or non-intentionality of an actant, still, the case-category in their case-frames is specified as D.

Thus, it appears reasonable not to take account of intentionality or non-intentionality of an actant for case-specification.

II 2 This section deals with the O(bjective) and F(active)/R(esult) cases and cognate objects. As these have been considered related in one way or other, it is appropriate that they be discussed together, even though they appear, at first sight, to be different kinds of construct.

In sub section II 2 1 the case-category O is discussed. In sub section II 2 2, the F/R as a case-category distinct from O, and the relevance of cognate objects in relation to F/R are examined.

II 2 1 The case-category O is discussed in sub sections II 2 1 1, II 2 1 2, II 2 1 3 1, II 2 / 3 2. In II 2 1 1 definitions of O are taken up. In II 2 1 2 sentences containing O are shown through their derivations. In II 2 1 3 1 and II 2 1 3 2 the process of passivisation which involves R(eceptive) as well, is discussed. In II 2 1 4 sentences which allow obligatory deletion of A/D, are referred to.

II 2 I 1 According to Fillmore the case category O is assigned to the entity that moves or changes or whose position or existence is in consideration²⁴. Neither this nor an alternative definition²⁵ is followed up with exemplification or amplification. The only change (from a to b) worth noting, appears to be the elimination of the feature [animate]²⁶. This is implied in Fillmore's remark about Experiencer and Object case categories wherein the two are considered to appear in complementary distribution, the Object being

24 Fillmore C. J., (1969) p 116

25 Fillmore, C. J., (1971) p 251 "The Object case is that of the entity which moves or which undergoes changes, and I still use it as a waste basket: sentences embedded to Objects can serve to identify for example the content of a psychological event as with the verbs of judging or imagining."

26 Fillmore C. J. (1971), p 251 "I no longer confuse selection restrictions to animates with true case like notion."

assigned in the context of a non-psychological verb indicating a change of state.²⁷ But, with this definition of O, sentences like 1, 2 would pose problem for Fillmore with regard to case-assignment, as he would have to specify two occurrences of O, thus, breaking his 'one-instance [of one case-category_{bsk}] -per-clause principle.'²⁸

- | | | | | |
|----|-------------------|-----|-----|------------|
| 1. | sohanah — | tām | — | paśyati |
| | O | O | | |
| | s. | — | her | — looks |
| | (s. looks at her) | | | |
| 2. | rāmah — | tām | — | ādriyate |
| | O | O | | |
| | r. | — | her | — respects |
| | (r. respects her) | | | |

Secondly, there appears to be little syntactic justification (Fillmore has given none in 'Some Problems for Case-Grammar'), for bringing O in line with A(gentive) and E(xperiencer) by eliminating the feature of [animacy]. As developed by Fillmore, the case-categories A, E are assigned to entities which are [+animate²⁹]. Now, his definition of O (f. n. 27) indicates that it may be assigned to an entity which is [+animate]. Moreover, though O is assigned in relation to non-psychological verbs (f. n. 27), the sentence-embedding under O may be in relation to verbs of judging and imagining (f. n. 25). Thus, the demarcation between E and O becomes hazy to the extent that the definition or explication of the O, as in 'Some Problems for Case-Grammar',

27. Fillmore, C. J., (1971), p. 251 : 'Where there is a non-psychological verb which indicates a change of state, such as one of dying or growing, we have the Object.'

28. Fillmore, C. J., (1971), p. 248.

29. Fillmore, C. J., (1971), pp. 249-250; 253-255, 261.

appears to be of no relevance to distinguish it as a case-category. So, the elaboration of O, as in 'Some Problems for Case-Grammar', is ignored³⁰ and, in the following discussions, it is proposed to refer to the case-category O³¹ as '(i) the semantically most neutral case, the case of anything representable by a noun whose role in the action or state identified by the verb, is identified by the semantic interpretation of the verb itself; (ii) conceivably the concept should be limited to things, which are affected by the action or state identified by the verb.'³² This definition contains two parts (marked by me as) (i) and (ii). The first part accounts for sentences like 3, 4, 5 and the second for sentences like 6.

3. *bālikā* — *gānam* — *gāyati*
 A O (the girl sings a song)
 girl — song — sings
 (the girl sings a song)
4. *atithih* — *gamanam*³³ — *karoti*
 A O (the guest leaves)
 guest — going — does
 (the guest leaves)

30. For some problems arising out of this postulation of O, see sub-sections 2.2., 2.3.
31. The postulation of O 'as a waste basket' (Fillmore, C. J., (1971), p. 251) raises a problem for his case-theory, which is referred to in Chap. VI.
32. Fillmore, C. J., (1968a), p. 25 : 'the term (Objective *bsk*) is not to be confused with the notion of direct object, nor with the name of the surface case, synonymous with 'accusative.'
33. : Constructions like 'gamanam-karoti' are discussed in II. 2. 2. 2. Towards the end of II. 2. 2. 2, it is proposed that such constructions may be covered by the process of nominalisation.

5 (i) $\overset{\text{O}}{\text{nadi}}$ — vahati (ii) $\overset{\text{O}}{\text{vāyuh}}$ — vāti (iii) $\overset{\text{O}}{\text{sūryah}}$ — divyati
 river — flows wind — blows sun — shines

6 (i) $\overset{\text{A}}{\text{sohanah}}$ — $\overset{\text{O}}{\text{paridhānam}}$ — rañjayati
 s — dress — dyes
 (s dyes the dress)

(ii) $\overset{\text{A}}{\text{rāmah}}$ — $\overset{\text{O}}{\text{patram}}$ — pathati
 r. — letter — reads
 (r reads a letter)

The case-category O is assigned to the entities which are [—animate] and, thus, it is distinguished from the case-category R(eceptive),³⁴ assigned to the entities which are [+animate], and are affected by the action or state identified by the verb. The case-category R appears distinguished from O on three points. In the first instance, R, as opposed to O (as in sentence 5 above), can never occur alone. Its occurrence in a case-frame presupposes A/D. Consequently, O may be selected for subjectivisation, even in the absence of the process of passivisation, but R can be subjectivised only when the process of passivisation has operated. Secondly, in a sentence like 7, there is need to distinguish R and O ('one instance-per-clause principle' may be recalled)

7. $\overset{\text{A}}{\text{yātrikah}}$ — $\overset{\text{R}}{\text{nāgarikam}}$ — $\overset{\text{O}}{\text{mārgam}}$ — prcchati
 A nom R acc O acc
 tourist — city dweller — way — asks
 (the tourist asks the city-dweller the way)

Thirdly, if R is distinguished from O which is assigned to inanimate entities, the embedding under O for processes like complementation appears semantically more appropriate

34 This case-category is mentioned first (to my knowledge) by Wilson (1971)

II. 2. 1. 2. In this sub-section, the case-category O is specified in relation to different syntactic structures. The case-frames in the sentences below, are [A, I, O—] in 8, 9; [I—] in 10, 10'; [A, I, R—] in 11, 12; [I—] in 13, 13'; [A, O—] in 14, 15, 17, 18; [O—] in 16, 16', 19, 19'. The derivations of 8, 9, 10, 14-16 are given in detail, those of 11, 12, 13, are limited to their underlying structures. The derivations of 17-19 being similar to that of 14-16, are not indicated.

8. śatruḥ — agninā — grāmam — dahati
 A nom I I O acc
 enemy — with fire — village — burns
 (the enemy burns the village with fire)
9. śatrunā — agninā — grāmah — dahyate
 A I I I O nom
 by enemy — with fire — village — is burnt
 (the village is burnt with fire by the enemy)
10. agniḥ — dahati — (svayameva)³⁵
 I nom
 fire — burns — (itself)
- 10'. agninā — dahyate — (svayameva)
 I I
 by fire — is burnt — (itself)
 ((it) is burnt by fire (by itself))
11. ākhetakah — dhanusā — paśūn — vidhyati
 A nom I I R acc
 hunter — with bow — animals — shoots
 (the hunter shoots animals with a bow)
12. ākhetakena — dhanusā — pasavah — vidhyante
 A I I I R nom
 by hunter — with bow — animals — are shot
 (animals are shot with a bow by the hunter)

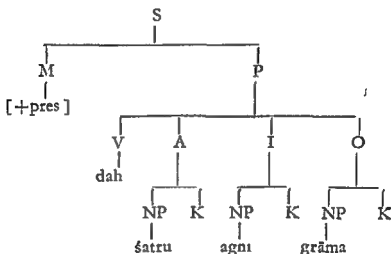
35 This sentence with a case frame [I—] is given here to compare with sentences 16, 16', 19, 19' which have a case frame like [O—].

13. dhanuḥ — vidhyati — (svayameva)
 I nom
 bow — shoots — (itself)
- 13'. dhanuṣā — vidhyate — (svayameva)
 I i
 by bow — is shot — (itself)
 ((it) is shot by the bow (by itself))
14. sūdaḥ — odanam — pacati
 A nom F acc
 cook — boiled rice — cooks
 (the cook cooks boiled rice)
15. sūdena — odanaḥ — pacyate
 A i F nom
 by cook — boiled rice — is cooked
 (boiled rice is cooked by the cook)
16. odanaḥ — pacyate — (svayameva)
 F nom
 boiled rice — cooks — (itself)
- 16'. odanena — pacyate — (svayameva)
 F i
 by boiled rice — is cooked — (itself)
 ((it) is cooked by boiled rice (by itself))
17. takṣakah — kāṣṭham — bhinatti
 A nom O acc
 carpenter — wood — splits
 (the carpenter splits the wood)
18. taksakena — kāṣṭham — bhidyate
 A i O nom
 by carpenter — wood — is split
 (wood is split by the carpenter)
19. kāṣṭham — bhidyate — (svayameva)
 O nom
 wood — splits — (itself)

- 19 kāsthena — bhidyate — (svayameva)
 O 1
 by wood — is split — (itself)
 both=((it) is split by the wood (by itself))

Sentences 8,9 have an underlying structure as represented in Figure I

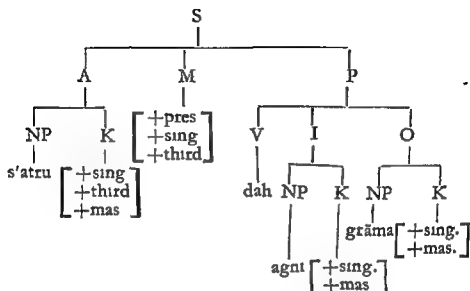
Figure I



The subjectivalisation rule³⁶ applies and selects A. The result is as given in Figure II

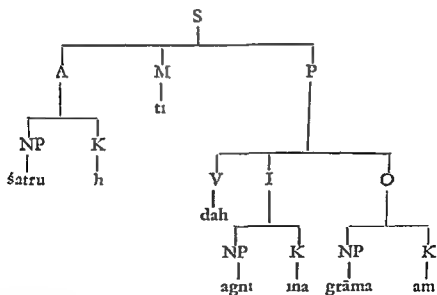
36 It may be noted that the subjectivalisation rule in Sanskrit is optional. But, whenever the case-frame contains R and/or O/Γ, in addition to A/D, and A/D is not selected for subjectivalisation, R or O or Γ, as a general rule, is selected for subjectivalisation. This process is referred to as passivisation with subjectivalisation (II 1 1)

Figure II



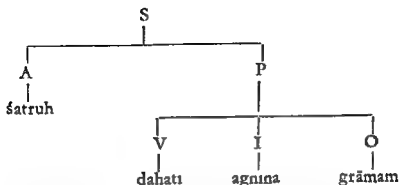
The affix-substitution rule replaces the features with affixes, and the result is as represented in Figure III.

Figure III



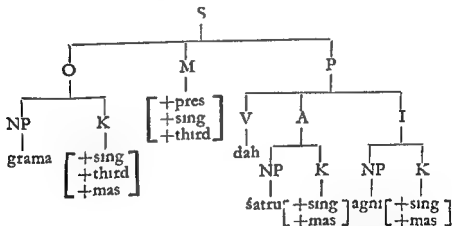
The final form (aside from scrambling) is as given in Figure IV.

Figure IV



Alternatively, if the subjectivatisation rule does not select A (see f n 36) O is selected for subjectivatisation, and the representation is as in Figure V (from Figure I)

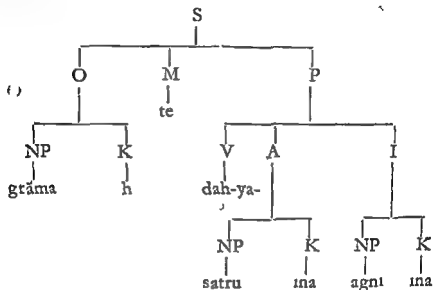
Figure V



The affix-substitution rule replaces the features with affixes. It may be noted that if O (or R/F) is selected for subjectivatisation (and A/D is also present in the case frame), M selects an affix which belongs to the 'te'-class,³⁷ rather than the 'ti'-

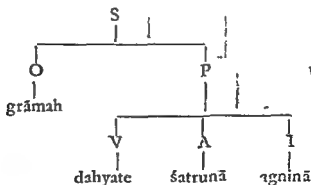
class, the stem element 'ya' is added to the V³⁹. The result is as in Figure VI.

Figure VI



The final form is as represented in Figure VII

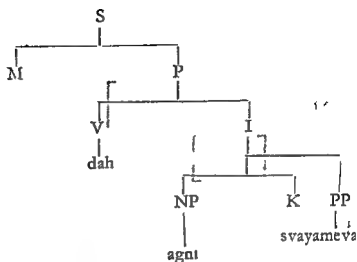
Figure VII



Sentences 10, 10 have the underlying structure as in Figure VIII

39 The whole process may be referred to as that of passivisation. If the form under the V contains the 'ya' element already, no 'ya' element is added as in 'divyati/dīyate'.

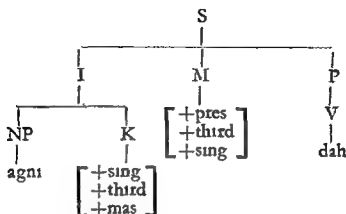
Figure VIII



It may be noted that I is the only case-category in the case-frame of sentences 10, 10 (like the F/O in 16, 16', 19, 19 and the I in 13, 13). If there is another case-category in the case-frame, I cannot be selected for subjectivisation.³⁹ The P(ost)-P(osition) 'svayameva' (by itself) bars the occurrence of any other case category in the case-frame of a simplex I. I is selected for subjectivisation. The P(ost)P(osition) 'svayameva' is deleted optionally. The result is as in Figure IX.

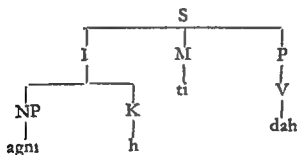
39 A sentence like *agnih gramam dahati* 'fire village burns fire burns the village' appears doubtful. Even if it is argued that in this sentence, the NP 'agni' indicating a natural phenomenon (cf II 3 3 1) behaves idiosyncratically as an I, sentences like 10, 13, 16, 19 do not allow the occurrence of any other case-category in their case frames, if they have to convey the sense of 'svayameva' (by itself) (cf fn 41).

Figure IX



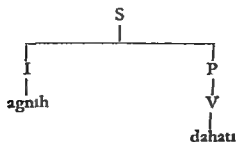
The affix-substitution rule replaces the features with affixes, and the result is as in Figure X

Figure X



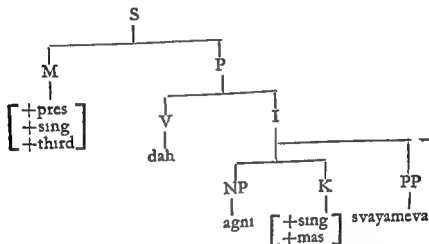
The final form is as represented in Figure XI

Figure XI



It may be recalled that the subjectivalisation rule being optional, it may be that no case-category is selected for subjectivalisation. In such a case, (i) the M indicates [+third], [+singular], (ii) the affix under M shows 'te' rather than 'ti', (iii) and the stem-element 'ya' is added to V⁴⁰. I is not selected for subjectivalisation and the result is as represented in Figure XII (from Figure VIII)

Figure XII



The affix-substitution rule replaces the features with affixes. The Post Position is deleted optionally. The final form is as in Figure XIV via Figure XIII

40 Recall the process applied to figure VI (f n 38). This process is similar to the earlier with the difference that no case-category is subjectivalised and consequently the M as it does not take on the features of [number] and [person] of any case-category, always indicates the features [+third] [+person] [+singular]. This process may be referred to as passivisation without subjectivalisation.

Figure XIII

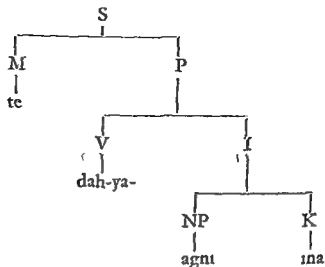
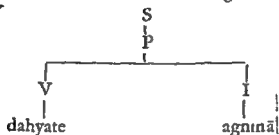
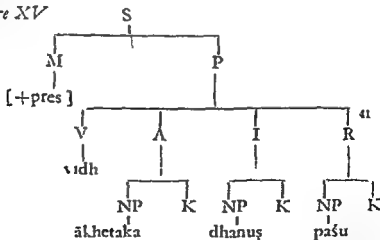


Figure XIV



Sentences 11, 12 have the underlying structure as in Figure XV.

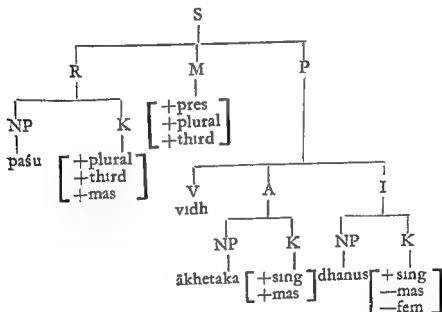
Figure XV



41 Here there would be no difference if R is replaced by O. But as mentioned earlier (II 2. 1. 1) there is need to distinguish a case-category like R from O.

The subjectivalisation-rule applies and selects A, the process as applied in the case of Figures II, III, IV, follows and gives the sentence 11. Alternatively, A is not selected, and R being in the case-frame, is selected for subjectivalisation. The result is as in Figure XVI. It may be noted that M indicates the feature [+plural] taken from R.

Figure XVI

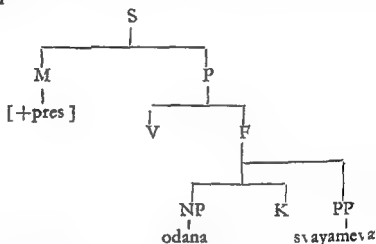


The process of passivisation as in the case of Figures VI, VII, applies and gives the sentence 12.

Sentence 13 has a derivation similar to that of sentence 10 (figures VIII, IX, X). If I is not selected for subjectivalisation (as in figure XII), the process of passivisation without subjectivalisation (fn 40) applies and, through configurations similar to those in figures XII, XIII, XIV, we get sentence 13 above.

Sentences 14, 17 and 15, 18 have derivations similar to those of 8, 11 and 9, 12 respectively. The derivation of sentence 16 is shown. Sentence 19 has a derivation similar to that of 16, and hence is not shown. Sentence 16 has the underlying structure as in Figure XVII.

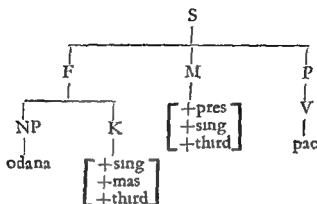
Figure XVII



It may be noted that the subjectivatisation-rule is optional. If A/D also occurs in the case frame (as in Figure I), in addition to R/O/F/GO, and the subjectivatisation-rule does not select A/D, R/O/F/GO must be selected for agreement with the verb. In the above configuration, only F occurs (recall sentence 10 has only I in its case frame)⁴², and the subjectivatisation-rule applies, and selects it for agreement with the V. The P(ost) P(osition) 'svayameva' is deleted optionally. The result (omitting intervening details) is as in Figure XVIII.

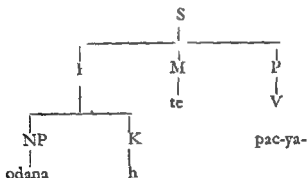
42 f n 39 may be recalled: 'agnih'(fire) as a natural phenomenon may be subjectivised, indicating an idiosyncratic characteristic in a construction like 'agnih gramam dahati'. But, in no case would a sentence like 16 allow the occurrence of another case category. Besides, if the sense of 'by itself' is to be conveyed, even I in sentence 10 would not allow the occurrence of another case category.

Figure XVIII



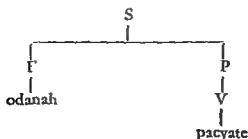
The process of passivisation applies and the affix-substitution rule operates. The result is as in Figure XIX.

Figure XIX



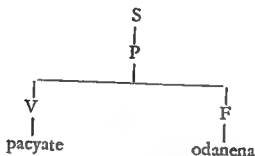
The final form is as in figure XX

Figure XX



Again, the subjectivatisation-rule need not apply at the stage of figure XVII and, consequently, the process of passivisation without subjectivatisation (as in figure XII) applies, and the final form (aside from scrambling) (leaving out the intervening details) is in figure XXI

Figure XXI



Sentences 19, 19, will have a derivation similar to that of sentences 16, 16 above (through figures XVII—XXI)

It may be mentioned that sentences 10, 10, 13, 13, 16, 16, 19, 19, all indicate that the action/process is accomplished easily, as indicated by the occurrence of the Post Position 'svayameva' (by itself) in their underlying structures. Such constructions allow only one case category (i.e. I/O) in their case frames. In this sense, sentences 10* (recall fn 39, 42), 13*, 16* are unacceptable (sentences 13*, 16* are, anyway, unacceptable)

10*	▷	agnih	—	gramam		dahati
		I		O		
		fire	—	village	—	burns
		(fire burns the		village)		
13*	*	dhanuh	—	pasun	—	vidhyati
		I		R		
		bow	—	animals	—	shoots
		(the bow shoots the animals)				

16".	odanah	—	sthālyām	—	pacyate
	F		L		
	rice	—	in pot	—	cooks
	(rice cooks in the pot)				

In the case of [0—], but not in the case of [I—], the process of passivisation also operates (cf. sentences 10, 13, 16, 19). Sanskrit grammarians would try to distinguish the verb-forms 'pacyate', 'bhidyate' in 16, 19 from those in 16', 19, on the ground that there being difference in their pitch accent,⁴³ they need to be derived differently. As mentioned in the beginning, no note of pitch-differentiation is taken in this analysis, and, therefore, there appears to be no necessity to propose different derivational processes for verb-forms 'pacyate' and 'bhidyate' in sentences 16, 19 and 'dahyate' and 'vidhyate' in sentences 10', 13. This is further supported by the verb-forms 'pacyate' and 'bhidyate' in 16', 19 wherein it would be difficult to separate the two processes.

II 2 1 3 1 In this sub-section, a set of sentences is considered, in which, there is subjectivisation of a case-category other than R/O/F (which are present in the case-frame), in case the subjectivisation-rule does not select A/D. Consider sentences 20", 21", 22", 23" wherein a case-category co-occurring with R/O/F enters into agreement with the V as A/D is not selected for subjectivisation.

20	gopah	—	goh	—	dugdham	—	dogdhi
	A nom		SO ab		F acc		
	milkman	—	from cow-		milk	—	milks
20.	gopah	—	gām	—	dugdham	—	dogdhi
	A nom		SO acc		F acc		
	milkman	—	cow	—	milk	—	milks
	both = (the milkman milks (milk from) the cow)						

- 20*. gopena — gauh — dugdham — duhyate
 A₁ SO nom F acc
 by milkman — cow — milk — is milked
 (milk is milked from the cow by the milkman)
- 21 sūdah — tandulebhyah⁴⁴ — odanam — pacati
 A nom SO ab F acc
 cook — from rice — boiled rice — cooks
- 21'. sūdah — tandulān — odanam — pacati
 A nom SO acc F acc
 cook — rice — boiled rice — cooks
 both=(the cook cooks boiled rice out of rice)
- 21*. sūdena — tandulāh — odanam — pacyante
 A₁ SO nom F acc
 by cook — rice (s) — boiled rice — are cooked
 (boiled rice is cooked out of rice by the cook)
- 22 guruh — śisyāya — dharmam — brūte
 A nom R d O acc
 teacher — for pupil — religion — talks
22. guruh — śisyam — dharmam — brūte
 A nom R acc O acc
 teacher — pupil — religion — talks
 both=(the teacher talks on religion to the pupil)
- 22' gurunā — śisyah — dharmam — ucyate
 A₁ R nom O acc
 by teacher — pupil — religion — is talked
 (the pupil is talked to by the teacher on religion)

44 Later Sanskrit commentators consider it to be 'karana' (INSTRUMENTAL upper face indicates that it is not to be identified with I/1), which appears to be wrong Cf Roy, S, (1920) p 12 he says that it could be either 'karana' or 'apa dana' (SOURCE) Cf Bhattojiḍikṣita (p 523) 'tattvabodhini' commentary says it is 'karana' and (by implication) 'adhikarana' (LOCATIVE)

On the other hand Patanjali mentions 'edhaḥ' (fuel) as 'karana', and not 'tandula' (rice), p 325 He gives a Genitive form of 'tandula', as in 'tandulanam-odanam pacati' (of rices boiled rice (he) cooks (he cooks boiled rice)), p 332

23. bālahah — sārameyam — vraje — runaddhi
 A nom R acc L 1
 boy — dog — in enclosure — holds
- 23'. bālahah — sārameyam — vrajam — runaddhi
 A nom R acc L acc
 boy — dog — in enclosure — holds
 both=(the boy holds the dog in an enclosure)
- 23". bālahena — sārameyam — vrajah — rudhyate
 A 1 R acc L nom
 by boy — dog — in enclosure — is held
 (the dog is held in an enclosure by the boy)

It may be noted that in sentence 22, R and O co-occur and it is R, and not O, that enters into agreement with the V in sentence 22'. This selection of a case-category other than R/O/F for agreement with the V, if A/D occurs in the case-frame and is not selected for subjectivisation, is limited to a set of twelve verbs. Of these, four are given above (20-23). There has been some disagreement among the traditional grammarians regarding the exact number of such verbs.⁴⁵

II. 2. 1. 3. 2. In this sub-section, a further set of sentences which allow a case-category other than R/O/F to be in

45. Roy, S, (1920), p 11 · he quotes Bhaṭṭojidīkṣita's list of 12 verbs : (i) dogdhi (milks), (ii) yācate (begs), (iii) prcchati (asks), (iv) runaddhi (holds), (v) brūte (speaks), (vi) śāsti (instructs), (vii) pacati (cooks), (viii) cinoti (gathers), (ix) jayati (wins), (x) mathnāti (churns), (xi) muṣnāti (steals), (xii) dandayati (punishes). Cf. Subrahmanya Sastri, P. S., (1970) (vol. V) p. 110 he refers to Patañjali's list which contains the first six of Bhaṭṭojidīkṣita's list and (vii) bhikṣate (begs). Kaiyata adds (ix), (xi), (xii) of Bhaṭṭojidīkṣita's list to that of Patañjali. Cf. Bhojadeva (1100 A. D.), p 13 he refers to the list of Patañjali, and adds two to his lists : (i) 'karoti' (does), (ii) 'grhnāti' (takes).

agreement with V, in case A/D is not selected for subjectivalisation, is considered. In sentences 24*, 26* L and I are in agreement with the V respectively. This selection of L and I induces the operation of the process of passivisation and is conditioned by the occurrence of the pre-verb 'adhi' with the verbs 'śete/tiṣṭhati/āste' (sleeps/sits/stays) in sentence 24*, and by the occurrence of the verb 'dīvyati' (gambles) in sentence 26* (cf. in sentences 24*, 26*, L and I are not in agreement with the V respectively, and passivisation without subjectivalisation takes place).

24. sundarī — śayāne — śete/tiṣṭhati/āste
 A nom L I
 beautiful lady — in bed — sleeps/sits/stays
- 24'. sundarī — śayanam — adhi — śete/tiṣṭhati/āste
 A nom L acc
 beautiful lady — in bed — sleeps/sits/stays
 both = (a beautiful lady sits/sleeps/stays in bed)
- 24". sundaryā — śayanam — adhi — śayyate/sthīyate/āsyate
 A i L nom
 by beautiful lady — bed — is slept in/sat into/stayed in
 (the bed is slept in/sat into/stayed in by a beautiful lady)
- 24'''. sundaryā — śayāne — śayyate/sthīyate/āsyate
 A i L I
 by beautiful lady — in bed — is slept in/sat into/stayed in
 (the bed is slept in/sat into/stayed in by a beautiful lady)

It may be noted that sentences 25, 25' are unacceptable.

- 25.* sundaryā — śayāne — adhi — śayyate/sthīyate/āsyate
 A i L I
 by beautiful lady — in bed — is slept in/sat into/stayed in
- 25'.* sundaryā — śayanam — śayyate/sthīyate/āsyate
 A i L nom
 by beautiful lady — bed — is slept in/sat into/stayed in

In sentence 26 I co-occurs with A. In sentence 26', A is not subjectivalised and I being optionally selected for agreement with the V, the process of passivisation operates. But, in sentence 26'', I is not selected for agreement with the V, and passivisation without subjectivalisation takes place.

26. dyūtakahrah — aksaih — dīvyati
A nom I
(a gambler gambles with dice)

26.' dyūtakahrah — aksān — dīvyati
A nom I acc
gambler — dice — gambles
(a gambler gambles with dice)

26.'' dyūtakarena — aksāh — dīvyante
A I I nom
by gambler — dice — are played
(dice are played by a gambler)

26''' dyūtakarena — aksaih — dīvyate
A I I
by gambler — with dice — is played
(it) is played with dice by a gambler)

Before concluding this sub-section, it is worth noting that the process of passivisation may operate, but R/O need not be selected for agreement with V due to co-occurrence of some post-position. In sentences 28, 29, 30, the occurrence of 'prati' and 'antarena' blocks the selection of R and O for agreement with the V as in sentences 28', 29', 30'. However, the process of passivisation without subjectivalisation applies.

28 guruh — śisyam — prati — vadati
A nom R acc
teacher — pupil to — speaks
(the teacher speaks to the pupil)

- 28'. gurunā — śiṣyam prati — ucyate
 A 1 R acc
 by teacher — pupil to — is spoken
 (pupil is spoken to by the teacher)
29. svāmī — gēham prati — paśyati
 D nom O acc
 owner — house to — looks
 (the owner looks at the house)
- 29'. svāminā — gēham prati — drśyate
 D 1 O acc
 by the owner — house to — is looked
 (the house is looked at by the owner)
30. mātā — putram-antarena — cintayati
 D nom R acc
 mother — son about — worries
 (the mother worries about (her) son)
- 30'. mātṛā — putram prati — cintyate
 D 1 R acc
 by mother son about — is worried
 ((it) is worried about son by the mother).

It may be noted that sentences 28'', 29'', 30'' which undergo the process of passivisation, along with the selection of R and O for agreement with the V, are unacceptable.

- 28'*. gurunā — śiṣyah prati — ucyate
 A i R nom
 by teacher — pupil to — is spoken
- 29'*. svāminā — gēham prati — dṛśyate
 A i O nom
 by owner — house to — is seen
- 30'*. mātṛā — putrah antarena — cintyate
 A i R nom
 by mother — son about — is worried

In case the post-positions 'prati' and 'antarena' do not occur, the R/O agrees with the V, and the process of passivisation applies, and we obtain sentences 31, 32, 33

- 31 gurunā — sisyah — ucyate
 A 1 R nom
 by teacher — pupil — is spoken
 (the pupil is spoken to by the teacher)
- 32 svaminā — geham — drsyate
 D 1 O nom
 by the owner — house — is looked
 (the house is looked at by the owner)
- 33 mātṛā — putrah — cintyate
 D 1 R nom
 by mother — son — is worried
 ((it) is worried about son by the mother)

It may be noted that sentences 31, 32, 33 with R/O not in agreement with the V and the process of passivisation operating, are unacceptable

- 31 * guruna — sisyam — ucyate
 A 1 R acc
 by teacher — pupil — is spoken
- 32 * svamina — geham — drsyate
 D 1 O acc
 by owner — house — is looked
- 33 * matra — putram — cintyate
 D 1 R acc
 by mother — son — is worried

II 2 1 4 In this sub section, a set of sentences, in which A/D is obligatorily deleted (in fact, A/D is a dummy), and O is obligatorily subjectivalised, along with the process of passivisation operating, is considered. The case category O may dominate an embedded S as well, as in sentence 35. Consider sentences 34, 35

34. rāṣṭragānam — giyate
 O nom
 national anthem — is sung
 (national anthem is sung)
35. śrūyate-[pāṭaliputre-aśokaḥ — avasat]
 O L i A nom
 is heard-in Patna — a. — lived
 (it is heard, a. lived in Patna)

Sentence 34 has the underlying structure as in figure XXII and 35 has as in figure XXIII.

Figure XXII

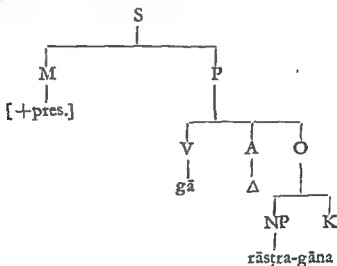
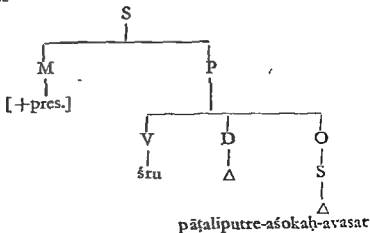


Figure XXIII



II. 2. 2. In this sub-section the case-category F(active)/Re(sult), as distinct from O is discussed, and its relation to cognate objects is examined.

II. 2. 2. 1. The case-category F is proposed in 'the Case for Case'.⁴⁶ In 'Types of Lexical Information',⁴⁷ F is replaced with Re. But, this change in nomenclature is not followed by any discussion at all, and thus, it is of no relevance. Besides, Re, as defined above, is covered by F. Recently, the elimination of F/Re as a distinct case-category has been proposed.⁴⁸ According to this latter proposal, F/Re may be covered by GO(al). But, consider sentences like 36, 37.

36. sūdah — bhaktam — pacati
A F
cook — boiled rice — cooks
(the cook cooks boiled rice)

37. kavīh — gītam — racayati
A F
poet — song — composes
(the poet composes a song)

46. Fillmore, C. J., (1968a), p 25 'the case of the object or being resulting from the action or state identified by the verb, or understood as a part of the meaning of the verb' This definition has two parts which are taken up later (II. 2. 2. 2).

47. Fillmore, C. J., (1969), p 116 'the entity that comes into existence as a result of the action.'

48. Fillmore, C. J., (1971), pp 251-252 'Since the Goal case is used to indicate the later stage or end result of some action or change, it can absorb what I used to call 'Resultative' or 'Factive', that is, it specifies the end result role of a thing which comes into existence as a result of the action identified by the predicator, as in 'I wrote a poem' or 'I constructed a bridge'. As Fillmore's above proposal occurs in 'Some Problems for Case-Grammar', I would refer to the earlier position (as in p 46, 47 above) as 'Pre-Problems' position.

The case category F as specified in sentences 36, 37 (according to 'Pre Problems' definitions) would be replaced by GO(al) following the 'Post-Problems' position of Fillmore. But, even accepting his definition of Goal,⁴⁹ it does not appear to assign the GO to the NP, S specified as F above. Secondly, if his contention is accepted, even O in sentence 38 could be a GO.

38	mātā	—	patram	—	pathati
	A	nom	O	acc	
	mother	—	letter	—	reads
	(mother reads the letter)				

However, he gives only six lines to his suggestion (f n 48). Considering all these, it is appropriate that the discussion of F/Re (and also of O and cognate objects) is confined to their treatment in 'the Case for Case' (f n 46).

II 2 2 2 Now the question is: is the case category F syntactically justified? Is it related to cognate objects, and does the concept of cognate objects support its postulation?

Consider sentences 39, 41 and 40, 42 in which the NP's 'patram' and 'asandī' are assigned the case categories F and O respectively.

39	sītā	—	patram	—	likhati
	A		F		
	■	—	letter	—	writes
	(s writes a letter)				
40	sita	—	patram	—	pathati
	A		O		
	s	—	letter	—	reads
	(s reads a letter)				

49 See II 4 6

41. taksakah — āsandim — nirmāti
 A F
 carpenter — chair — makes
 (the carpenter makes a chair)

42. taksakah — āsandim — bhanakti
 A O
 carpenter — chair — breaks
 (the carpenter breaks the chair)

Sentences 40, 42, but not 39, 41, are possible in reply to sentence 43, because they (40, 42) indicate the existence of the letter/chair prior to the initiation of the action

43. sitā/taksakah — patrasya/āsandyāh — kim — karoti
 s / carpenter - of letter / of chair — what — does
 (what does she/carpenter do to the letter/chair ?)

Fillmore brings in the notion of cognate objects⁵⁰ to justify the postulation of F. Sentences with cognate objects 'are constructions in which at the very least, there is a high selectivity between a specific V and an object N, and in which the V+N combination in one language might well be matched by a V alone in another'.⁵¹ Consider sentences like 44, 45

44. sā — asanam — aśnāti
 she — meal — eats
 (she eats (her) meal)
45. sā — aśanam — karoti
 she — eating — does
 (she eats)

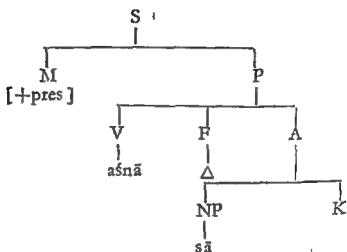
According to Fillmore, sentences parallel to

50 Fillmore, C J, (1968a), pp 85-86 under the section 'problems and suggestions'

51 Fillmore, C J, (1968a), p 85 But even in the same language a V+N construction may match with a V construction (sentences 44, 45 above)

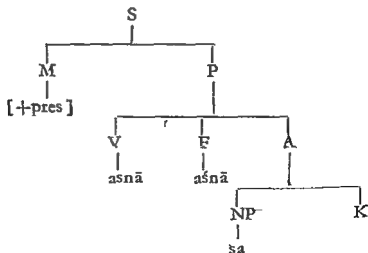
44, 45 have the underlying structure as in figure XXIV with F dominating a dummy (irrelevant details are eliminated)

Figure XXIV



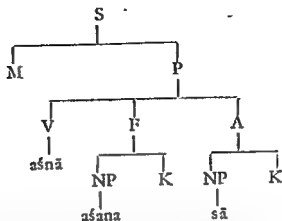
A copying rule, then, fills the dummy under F with the stem under V. The result is as in figure XXV

Figure XXV



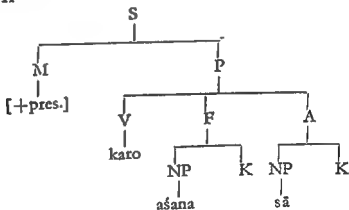
By another rule the V under F assumes the form of N (as in figure XXVI)

Figure XXVI



Fillmore proposes one rule⁵² to combine the two processes: 'copy the N-representative of the V under the F'. At the stage of figure XXVI, sentence 44 is derived. Alternatively, by a rule,⁵³ the V assumes a pro-V form, and the result is as in figure XXVII.

Figure XXVII



52. Fillmore, C. J., (1968a), p. 85.

53. Fillmore, C. J., (1968a), p. 85, 'Replace the V by the designated pro-V.' In Sanskrit, there is no verb-form comparable to 'have' in English which acts as a pro-verb among others. However, the verb-form 'karoti' (sentences 45, 46) functions as a pro-verb in a large number of constructions.

Sentence 45 is derived from a configuration as represented in figure XXVII. Fillmore's rule (11) appears to be an oversimplification. 'Traditional grammars call objects like song, sleep, breath 'cognates' because the noun in the so-called direct object position is morphologically related to the verb'⁵⁴ This definition of cognate objects is covered by the first rule (of Fillmore), but not by the second rule. Thus, according to this, sentence 45 would not be related to cognate objects. Fillmore would like to extend the definition of cognate objects.⁵⁵ Thus, he would consider a sentence like 45 as well as a sentence like 46 related to cognate objects (it may be noted that sentence like 46' is unacceptable. Sentence 46* is acceptable, but, then, sentences 46, 46* are not synonymous)

46 sā — śayanam — karoti

A

she — sleeping — does

(she sleeps)

46 * sā — sayanam — śete

she — sleeping — sleeps

46'. sā — śayane — śete

A

L

she — in bed — sleeps

(she sleeps in bed)

Fillmore's extension of cognate objects to cover sentences like 45, 46 is not discussed here further, as I do not

54 Baron, N S, (1971), p 71

55 Fillmore, C J, (1968a), p 85 'Some words may be treated as cognate-object V's even though the rule for replacing the pro V is obligatory' His example is 'nightmare nightmare'

V F

=> 'have nightmare' (p 86)

F

support the position that the concept of cognate objects is relevant for the postulation of the case-category F, as it is evident from the discussion below.

Now, examine the relationship between cognate objects and F. Recall the definition of F (f. n. 46) and consider sentences 47-50 along with 44, 45.

47. paṭakāraḥ — paṭam — vayati
 A F
 weaver — cloth — weaves
 (the weaver weaves a cloth)
48. mūrtikāraḥ — mūrtim — racayati
 A F
 idol-maker — idol — makes
 (the idol-maker makes an idol)
49. sa- { bhuNkte : eats } { bhojanam : eating- } -karoti
 he { gacchati : goes } { gamanam : going } does
 { paṭhati : reads } { paṭhanam : reading }
50. sundarī — madanaḥkham — likhati
 A F
 beautiful lady — love letter — writes
 (the beautiful lady writes a love-letter)

Sentences 44 and 45 are not parallels. Sentence 44 cannot have a continuation as in 44', but 45 can have as in 45'.

- 44'.* sâ — roṭikāyāḥ — aśanam — āśnāti
 A
 she — of bread — food — eats
- 45'. sâ — roṭikāyāḥ — aśanam — karoti
 A
 she — of bread — eating — does

It may be noted that 44' is acceptable.

44".	sā	—	$\begin{Bmatrix} \text{roṭikām} \\ \text{aśanam} \end{Bmatrix}$	—	aśnāti
			O		
	she	—	bread/food	—	eats
	(she eats		bread/food)		

Thus, in 44, in accordance with the criterion given above (II. 2. 1. 1), the NP 'aśanam' will be assigned the case-category O, and *ñot* F. Some may say that sentence 45 is an instance of a construction with deletable object. The notion of deletability of objects does not appear to be of significance for postulating case-categories, as, it is for the distinction between transitive and intransitive verbs⁵⁶, and in a case-grammar, the distinction between transitive and intransitive verbs need not be retained, as it is accounted for differently.

In sentences 47, 48 the NP's marked as F are not cognate objects. In 50 the cognate object is also F. The part one of F's definition by Fillmore (i. e. 'the case of the object resulting from the action or state identified by the verb' (f.n.4) accounts for sentences 50 (which has a cognate object), 47, 48 (which do not contain cognate objects), and leaves out sentence 44 (which contains a cognate object). Thus, the concept of cognate objects neither fully accounts for the case-category F nor makes the cognate objects a subset of F.

Sentences 45, 46, 49 can be considered to contain cognate objects (this is an extension of the concept of cognate objects by Fillmore as mentioned above), and can be specified F only when the part II of the definition of F (i. e.

56. Lehrer, Adrienne, (1970), p. 227; 'some linguists have treated verbs which occur with or without objects as transitive verbs that allow their objects to be deleted.'

'understood as a part of the meaning of the verb' (f.n. 46)) is taken into account. But, if this is so, how is F distinct from O, at least partially (cf. II. 2. 1. the first part of the definition of O)? As explicated above, the concept of cognate objects does not appear to account for the case-category F. And as this is so, there is no need to retain the part two of the definition of F as its sole purpose has been to account for instances like 45, 46, 49 above. The process of nominalisation (see IV. 3. 2.) may account for the phenomenon of cognate objects.

II. 2. 2. 3. In this sub-section I revert to the problem of the status of F as a distinct case-category. There has been a suggestion⁵⁷ to distinguish the performance of a song which is already in existence from the creation of a new song by singing, as in sentences 51, 52.

51. $\underset{A}{sītā}$ — $\underset{O}{jayadevasya}$ — $\underset{g}{gītam}$ — $\underset{F}{gāyati}$
 s. — of j. — song — sings
 (s. sings the song of j i. e. composed by j)

52. $\underset{A}{sītā}$ — $\underset{F|O}{gītam}$ — $\underset{F}{gāyati}$
 s. — song — sings
 (s. sings a song)

Sentences like 52 are ambiguous because the song may be already composed (as in sentence 51) or is being created while singing.

Consider sentences 53-56 which indicate the indeterminacy of any semantic criterion to distinguish F from O.

53. $\underset{A}{sūdah}$ — $\underset{O}{dugdham}$ — $\underset{F}{pacati}$
 cook — milk — boils
 (the cook boils milk)

57. Lehrer, Adrienne, (1970), p. 249.

There has been a suggestion⁵⁹ to eliminate the case-category F. The reason given is the indeterminacy arising out of the application of a semantic criterion. But, this situation may obtain in the case of other case-categories as well, and it is precisely in such situations that syntactic criterion plays a crucial role. It has been further suggested⁶⁰ that the motivation for postulating a case-category like F lies in the adherence to the rule that there should not be more than one occurrence of one case-category in a simple sentence. Thus, in a sentence like 'he has a dream about Jaya' the case-frame, as suggested, is [D+F+O—] rather than [D+O+O—]. But this suggestion does not solve the problem. There are similar sentences like 'he thought *about the plan* *about the child*', 'the teacher talked *about the student*', in which the case-category O/R could be assigned to the NP's underlined. A case-category like 'referential' has been suggested (but not developed) by some linguists⁶¹. Whatever may be the ultimate selection, the postulation of F appears to be only a partial solution of this problem.

II. 3 The case-category I(nstrumental) is assigned to an NP which is 'the inanimate force or object causally involved in the action or state identified by the verb'⁶². If the NP (acting as an argument of a verb) is not inanimate, the case-category assigned to it, cannot be an I. Thus, sen-

59 Baron, N S (1971), p 75 Cf, Fillmore, C J (1971) he proposes to drop F and assign G to the NP's concerned (see fn 48)

60 Baron, N S, (1971), p 77

61 Stockwell, R P, et al, (1968), vol II, p 957

62 Fillmore, C J, (1968a), p 24 Cf. id, (1969), p 116 'the stimulus or immediate physical cause of an event' Cf id (1971), p 251 'the case of immediate cause of an event or the stimulus, the thing reacted to'.

tence 1 has an I, but not sentences 2 and 3 Sentence 2 is unacceptable ⁶³

- | | | | | | |
|----|-----------------------------------|---|----------|---|-------------------------|
| 1 | chātrah | — | kalamena | — | likhati |
| | A nom | | I | | |
| | student | — | with pen | — | writes |
| | (the student writes with a pen) | | | | |
| 2 | chatrah | — | bālakena | — | likhati |
| | A nom | | I | | |
| | student | — | with boy | — | writes |
| 3. | chātrah | — | bālakena | — | lekhayati ⁶⁴ |
| | PR | | A | | |
| | student | — | by boy | — | makes write |
| | (the student makes the boy write) | | | | |

- 63 Sentence 2 is acceptable, if interpreted as an instance of Comitative (for details, Kumar, *Coordination in Sanskrit* (forthcoming), and as an alternative form of 'chatrah balakena—saha—likhati' 'chatrah—balakah-ca-likhatah' (the student and the boy write)
- 64 PR (ompter) refers to the case-category which initiates an action/state identified by the verb, in addition to an A (gentive) These constructions containing PR and A, may be referred to as causative constructions. Such constructions being complex, there is no inconsistency if PR also is referred to as A/D (as the case may be). However, PR is used to distinguish it from A/D of the embedded S, and, secondly, the use of PR indicates the neutralisation of A/D in the matrix S (i.e. the matrix S would show PR in place of A/D)

Causative constructions do not necessarily involve morphological distinction of verbal forms. Sentence A is a non-causative construction, sentence B is a causative one

- | | | | | | |
|---|--|---|-----------|---|----------------------|
| A | balakah | — | pustakani | — | ganayati |
| | A nom | | O acc | | |
| | boy | — | books | — | counts |
| | (the boy counts books) | | | | |
| B | pita | — | balakena | — | pustakani — ganayati |
| | PR nom | | A | | O acc |
| | father | — | by boy | — | books — makes count |
| | (the father makes the boy count the books) | | | | |

In a sentence like 4, the NP 'hastinā' specified as I-should be interpreted as 'with the body of an elephant' (hastinaḥ-śarīrena).⁶⁵ This is supported by the unacceptability of a sentence like 5⁶⁶.

4. duṣṭaḥ - hastinā - dvāraṁ - runaddhi
 A I O
 wicked - with elephant - door - obstructs
 (the wicked obstructs the door with an elephant)

5. guruḥ — bālakena — patram — likhati
 A I O
 teacher — with boy — letter — writes

The above characteristic of I becomes explicit, if sentences 6 and 7 are compared. Sentence 6 is derived from an underlying structure as represented in figure I. But, sentence 7 has an underlying structure which is not complex (as in figure II).

6. sa — sevakena — bhittim — pātayati
 PR A O
 he — by servant — wall — makes fall
 (he makes the servant knock the wall over)

7. sa — khaṇitrena — bhittim — pātayati
 A I O
 he — with spade — wall — makes fall
 (he knocks the wall over with a spade)

65. Fillmore, C. J., (1968a), p. 24 (f. n. 32) : he refers to, and discusses an example suggested by P. Postal : 'I rapped him on the head with a snake.'

66. Refer to f. n. 63 above, sentence 5 like sentence 4, is acceptable, if it is interpreted as an instance of Com.

Figure I

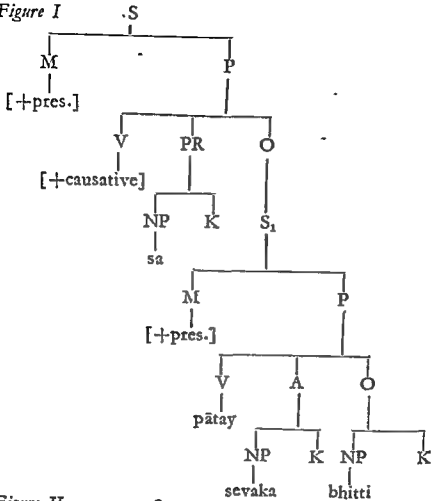
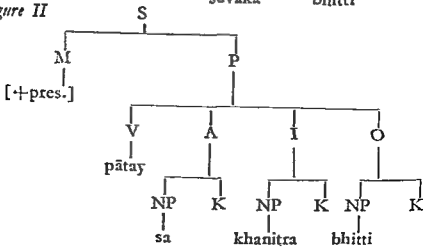


Figure II



II 3 1. The case-category I is distinguished from A/D/R/O/F. It is distinct from A/D as a subjectivisation-rule normally selects A/D for subjectivisation, and not I. If A/D is not selected, and R and I are present in the case-frame, the process of passivisation applies to R, but not to I. If I is the only case-category, in addition to A/D which has not been subjectivised, the process of passivisation without subjectivisation operates.⁶⁷ Moreover, A/D/R are assigned to NP's which are [+animate], but I is not

The case-category I is also distinct from F/O, though both are assigned to NP's which are [-animate]. If a case-frame contains the case-categories A, I, O, and A is not selected for agreement with the V, then, it is O rather than I which is selected by the process of passivisation. Thus, a sentence like 8 would correspond to 9 wherein O, not I, enters into agreement with the V. If I is selected for agreement (as in sentence 10), the sentence is unacceptable

- 8 mātā — churikayā — phalam — chinatti
 A nom I I O acc
 mother — with knife — fruit — cuts
 (the mother cuts fruit with a knife)

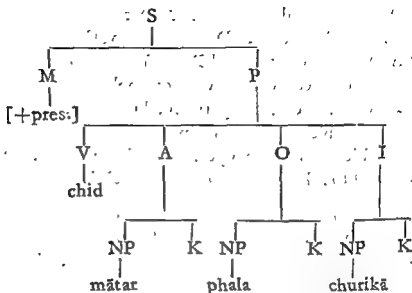
- 9 matra — churikayā — phalam — chidyate
 A I I I O nom
 by mother — with knife — fruit — is cut
 (fruit is cut with a knife by the mother)

- 10 * mātrā — churika — phalam — chinatti/chidyate
 A I I nom O acc/nom
 by mother — knife — fruit — cuts/is cut

Sentences 8, 9 have the underlying structure as in figure III

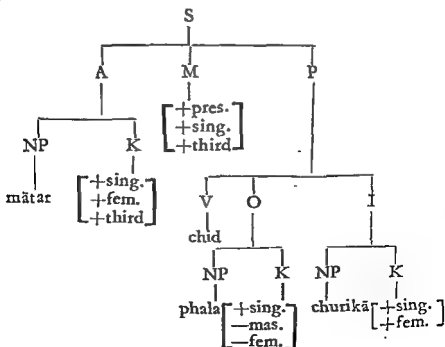
67 For details see II I I ,

Figure III



The subjectivalisation-rule applies and selects A for agreement with the V, the result is as in figure IV.

Figure IV



The affix-substitution rule substitutes the features with affixes, as in figure V, and the final form is as in figure V.

Figure V

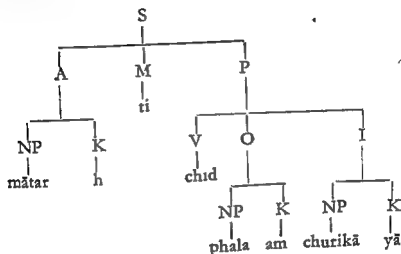
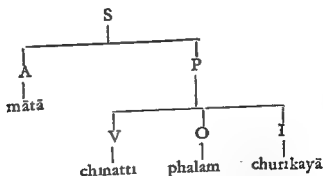


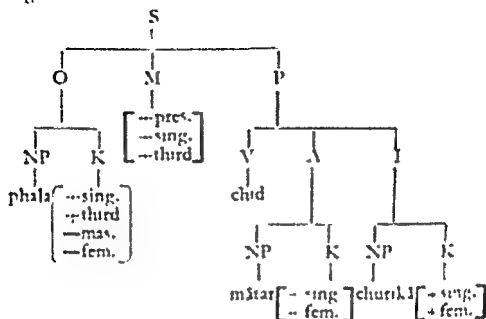
Figure VI



Alternatively, if A is not selected for subjectivalisation at the stage of figure III, the process of passivisation⁶⁸ applies. The result is as represented in figure VII (from figure I).

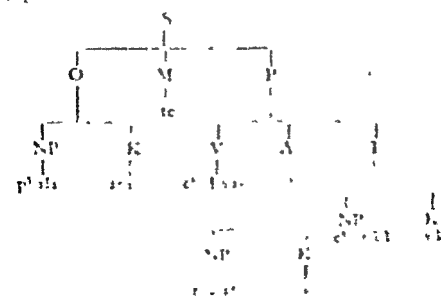
68. For details see II. 1. 1. and II. 2. 1. 2.

Figure VII



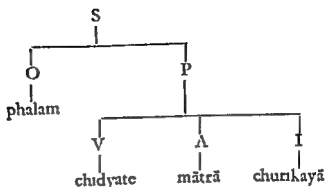
The affix-substitution rule applies, and the result is as in figure VIII.

Figure VIII



The affix-substitution rule applies, and the result is as in figure IX.

Figure IX



It may be noted that a sentence like 11, with no A in its case-frame, is suspect

11 *	churikā	—	phalam	—	chinatti
	I		O		
	knife	—	fruit	—	cuts

II 3 2 1 In this sub-section certain syntactic peculiarities of I are considered

Consider a sentence like 12 in which I is the only case-category present,

12	churikā	—	(svayameva)	—	chinatti
	I	nom			
	knife	—	by itself	—	cuts

(the knife cuts by itself)

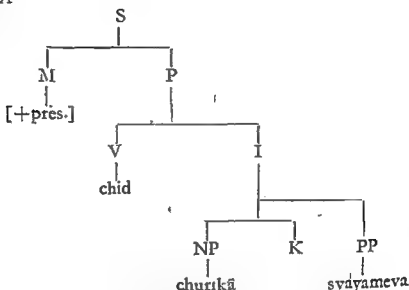
In constructions like 12, the I conveys the performance of the action with ease or without effort ⁶⁹ The subjectivalisation rule which has selected I for agreement with the V in 12, is optional. If the rule does not apply, sentence 12 is the alternative form

69 Also see II 2 1 2 (sentences 10 13)

- 12'. churikayā — (svayameva) — chidyate.
 I i
 by knife — (by itself) — is cut
 ((it) is cut by the knife by itself)
 Sentences 12, 12' have the underlying-structure

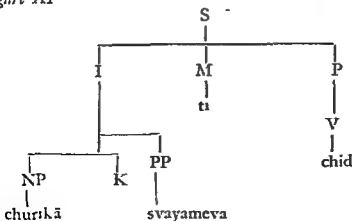
as in figure X.

Figure X



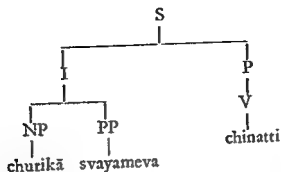
The subjectivalisation-rule applies, and the affix-substitution rule replaces the features with affixes, and the result is as represented in figure XI (omitting intervening details).

Figure XI



The final form is as represented in figure XII.

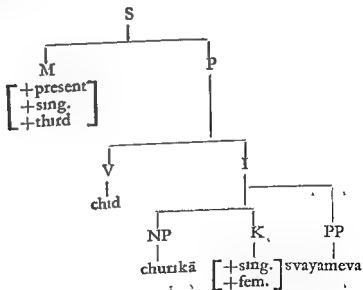
Figure XII



A PP-deletion rule deletes 'svayameva' optionally, and we obtain sentence 12.

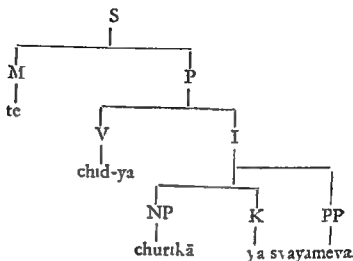
Alternatively, if the subjectivalisation - rule does not apply, the process of passivisation without subjectivalisation operates, and the result is as in figure XIII (from figure X).

Figure XIII



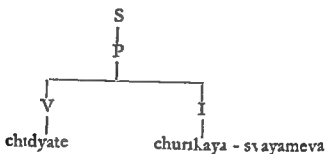
The affix-substitution rule replaces the features with affixes, and the result is as in figure XIV.

Figure XIV



The final form is as in figure XV

Figure XV



The PP-deletion rule deletes 'svayameva' optionally, and we obtain sentence 12

II 3 2 2 Consider, next, sets of sentences in which the process of passivisation, in relation to I, operates in various ways

As mentioned earlier (II I), if there is R/O/F in a case frame, and the subjectivisation rule does not operate, the process of passivisation with the subjectivisation of R/O/F takes place. But, if there is an I in the case frame (with or without O), it is, generally, not subject

to the process of passivisation with subjectivatisation (as is evident from sentences 13', 13"). However, in sentence 14", the I is optionally selected for subjectivatisation with the process of passivisation; sentence 14' shows the usual syntactic behaviour of I, i. e. its non-subjectivatisation with the process of passivisation. In sentence 15', still another peculiarity of I is indicated, wherein the I co-occurs with an O. The process of passivisation operates, but it is I, not O (cf II. 2 1. 2) which is subjectivatised optionally (sentences 15', 15"). This characteristic of I (sets B, C below), as mentioned above, is due to its occurrence in the case-frame of a verb like 'divyati'.

However, if a pre-verb like 'prati' is attached to 'divyati', the process of passivisation does not select the I for subjectivatisation, rather it selects O optionally for subjectivatisation (sentences 16', 16")

In set A, the process of passivisation does not select I for subjectivatisation (sentence 13" is unacceptable), even if a subjectivatisation-rule does not select A for agreement with the V (sentences 13, 13)

In sets B,C the verb 'divyati' has the case-frames [A, I], [A, I, O—] respectively. In both these case-frames the process of passivisation selects I (not O) optionally for agreement with the V (sentences 14', 15'), in case the subjectivatisation-rule has not selected A

In set D, the verb 'pratidivayati' has the case-frame [A, I, O—]. The process of passivisation selects O (and not I) for agreement with the V (sentence 16) in case subjectivatisation-rule does not select A ⁷⁰

70 Thus, we need ad hoc features on some verbs (as well as a specification of their case frames), if we are going to predict correctly the possibilities of passivisation

A

- 13 bālahah — gendukena — khelati
 A nom I 1
 boy — with ball — plays
 (the boy plays with a ball)
- 13 bālahena — gendukena — khelyate
 A 1 I 1
 by boy — with ball — is played
 ((it) is played with ball by the boy)
- 13* * bālahena — gendukah — khelyate
 A 1 I nom
 by boy — ball — is played

B

- 14 dyūtakarah — { aksān }⁷¹ — divyati
 A nom { acc
 I { aksaiḥ
 1 }
 gambler — dice/with dice — gambles
 (the gambler gambles with dice)
- 14 dyūtakarena — aksaiḥ — divyate
 A 1 I 1
 by gambler with dice — is gambled
- 14* dyūtakarena — akṣāḥ — divyante
 A 1 I nom
 by gambler — dice — are gambled
 both=((it) is gambled with dice by the gambler)

C

- 15 dyūtakarah — { akṣān } — śatasya⁷² — divyati
 A nom { acc
 I { aksaiḥ
 1 }
 gambler - dice/with dice - of hundred - gamble

71 A morphophonemic rule accounts for inflexional variation (acc/1) in the context of the verb 'divyati'

72 A morphophonemic rule accounts for the genitive inflexional realisation of O

II 3 3 1 Consider, next, a set of sentences containing NP's which refer to natural forces and are specified as I

- 17 sa — vayuna — dipam — samayati
 A I O
 he — with wind — lamp — extinguishes
 (he extinguishes the lamp with wind)
- 18 vaijñānikah — varsābhiḥ — śasyam — nāśayati
 A I O
 scientist — with rains — crop — destroys
 (the scientist destroys the crop with rains)
- 19 vayuh — dipam — śamayati
 I O
 wind — lamp — extinguishes
 (the wind extinguishes the lamp)
- 20 varsāḥ — śasyam — nāśayanti
 I
 rains — crop — destroy
 (the rains destroy the crop)
- 21* dandah — chatram — samayati
 I R
 stick — student — quietens
- 22* aśtram — sainikam — nāśayati
 I R
 weapon — soldier — kills
- 23 guruh — dandena — chatram — śamayati
 A I R
 teacher — with stick — student — quietens
 (the teacher quietens the student with a stick)
- 24 sainikah — aśtrēna — śatrum — nāśayati
 A nom I 1 R acc
 soldier — with weapon — enemy — destroys
 (the soldier destroys the enemy with a weapon)

It is apparent that the NP's 'vāyunā' and 'varṣābhīh' (specified as I in 17, 18) function like A in 19, 20 (cf. 'guruh' and 'sainikah' specified as A in 23, 24). It may be noted that 'dandena' and 'astrenā' (specified as I in 23, 24) cannot function like A, as sentences 21, 22 are unacceptable.

It is, perhaps, proper to distinguish between 'vāyunā' and 'varṣābhīh' in 17, 18 from 'vāyuh' and 'varsāh' in 19, 20. In 17, 18 the I's occur with A. The NP 'vāyunā' (with wind) may be either the servant's breath ('mukhasya vāyunā': with the wind of the mouth) or the wind of a fan (vyajanasya-vāyunā). Similarly, a scientist may create artificial rain to destroy/produce crops, as in sentence 18. Now, the problem is: how to specify the NP's 'vāyuh' and 'varsāh' in 19, 20 which are phenomena not subject to anybody's control (e.g. the 'vāyuh' in 19 could not be interpreted as the breath of someone). It has been suggested that there could be a case like 'Force'.⁷⁴ As Fillmore mentions, the proposed case Force can never occur in contrast with A/I.⁷⁵ One may suggest that the NP's referring to natural forces may be specified as either A or I. If the natural forces are specified as A, then, it will have to be a type of A that cannot occur with I. But, if they are I, then, this characteristic need not be specifically mentioned. Secondly, if they are I, their 'event-causing'⁷⁴ characteristic becomes automatically explicit. However, one may argue that they do not co-occur with A (as in 19, 20: provided the natural forces specified as I in 17, 18 are considered distinct from those in 19, 20). But, even in such sentences (19, 20) one can conceive of some Agent after all. However, the problem of the occurrences of NP's referring

74. Huddleston, R., (1970), p. 504

75. Fillmore, C. J., (1971), pp. 253-254

to natural forces as A (in sentences like 19, 20) remains to be solved. It has been mentioned earlier (II. 3. 2. 1.) that there are constructions in which I functions like A i.e. the subjectivalisation-rule selects it for agreement with the V. Similarly, in the case of NP's indicating natural forces and specified as I, the subjectivalisation-rule may also apply. II. 3. 3. 2. Now, consider a sentence like 25 in which one could argue that the case-frame is either $[I_1, I_2-]$ or $[A^{76}, I-]$.

25. agnih — tāpena — jalam — śoṣayati
 I₁ I₂ O
 fire — with heat — water — dries
 (fire dries water with its heat)

However, the NP 'agnih' (in 25), need not be specified as I in 25. Sentence 25 is derived from the structure underlying sentence 26, as the relation between 'tāpena' (heat) and 'agnih' (fire) is an inalienable one.⁷⁷

26. [agneḥ — tāpaḥ] — jalam — śoṣayati
 I O g O
 of fire — heat — water — dries
 (the heat of fire dries water)

Thus, there would be no need to specify 'agnih' (in 25) as I, as case-categories are to be specified in their underlying structures.

Fillmore suggests that the NP's indicating natural phenomena, in constructions specified as I, may be derived from superordinate structures.⁷⁸ There appears to be no justification for accepting this suggestion which involves treating such NP's at a level different from those NP's which do not refer to natural phenomena, and

76. In case one argues that the NP's indicating natural forces are A.

77. See IV, 3. 2. 1. 1. 5.

78. Fillmore, C. J., (1971), p. 254.

are assigned the case-category I. Fillmore himself has not amplified or exemplified his suggestion. Moreover, the postulation of the case-category I in the case of NP's referring to natural forces, as in sentences 17-26, does not violate the principle of 'one-instance-[of one case-category]^{bst}-perclause'.

II. 3. 4 Consider, next, sentences which contain NP's expressing emotive states.

27. *sevakah* *bhayena/bhayāt* — *kampate*
 A I i ab
 servant — with fear/from fear — trembles
 (the servant trembles with fear)
28. *bālā* — *śokena/śokāt* — *roditi*
 A I i ab
 girl — with grief/from grief — weeps
 (the girl weeps out of grief)
- 29 *mātā* - *krodhena/krodhāt* — *putram* - *tādayati*
 A I i ab R
 mother - with anger/from anger - son — beats
 (the mother beats her son out of anger)
- 30 *pitā* - *sneheṇa / snehāt* - *putram* - *āhvayati*
 A I i ab R
 father - with affection/from affection - son - calls;
 (the father calls his son with affection)
31. *mātā* - *krodhena/krodhāt* - *dandena* - *putram* *tādayati*
 A I i I ab I i
 mother-with anger/from anger-with stick-son-beats
 (the mother beats her son with a stick, out of anger)

In sentence 31, there appear to be two occurrences of I. Sentences like 31, appear to be a strong argument against postulating the principle of one occurrence of one case category in a simple sentence. Three possibilities suggest themselves : (i) the first relates to the

postulation of a new case-category for the NP's which express emotive states, (ii) the second is the acceptance that the NP's expressing emotive states and specified as I may co-occur with another I, (iii) the third is deriving these NP's from superordinate structures

Of these, (i) the first would lead to the multiplication of case-categories, thus eventually making their postulation trivial, (ii) the second makes the 'one-instance-per clause-principle' untenable. The third possibility suggests itself in view of sentences like 27', 28'.

27'. bhayam — sevakam — kampayati
PR A
fear — servant — makes tremble
(fear makes the servant tremble)

28. sokah — bālām — rodayati
PR A
grief — girl makes weep
(grief makes the girl weep)

However, sentences 29 -31' appear to be suspects.

29. krodhah - matra — putram - tādayati
PR A R
anger — by mother — son — makes - beat
(anger makes the mother beat her son)

30. snehah — pitrā — putram — āhvaयati
PR A R
affection — by father — son — makes call
(affection makes the father call his son)

31'. krodhah - mātra — dandena—putram—tādayati
PR A I R
anger - by-mother - with stick - son - makes beat
(anger makes the mother beat her son with a stick)

Sentences like 27 , 28' support the derivation of the NP's indicating emotive states from superordinate

structures. But, sentences like 29'-31' appear to go against this position.

II. 3. 5. In this subsection, NP's with 1-inflexion which may be derived from underlying complex structures are considered. The problem of intentional/non-intentional interpretation of sentences containing I, is also discussed.

II. 3. 5. 1. Consider sentences 32-33 which appear superficially to be simple, and may be derived from the structures underlying 32'-32'', 33'-33'' respectively.

32. pathikah — aśvena — yāti
 A nom . 1
 traveller — with horse — goes
 (the traveller goes on / with a horse)
- 32'. pathikah - aśvam - āruhya⁷⁹ - yāti
 A nom R acc V nom
 traveller - horse - having ridden - goes
 (riding a horse, the traveller goes)
- 32''. pathikah — aśvah — ca — yātaḥ⁸⁰
 A A
 traveller — horse — and — go
 (the traveller and the horse go)
- 33 sevakah — dipikayā — yāti
 A nom i
 servant — with lamp — goes
 (the servant goes with a lamp)
- 33 sevakah - dipikām - ādāya - yāti
 A nom O acc V nom
 servant - lamp - having taken - goes
 (having taken a lamp, the servant goes)

79 The process of nominalisation is discussed in III 5 and IV 3 2.

80 For the details see Kumar, *Coordination in Sanskrit* (forthcoming)

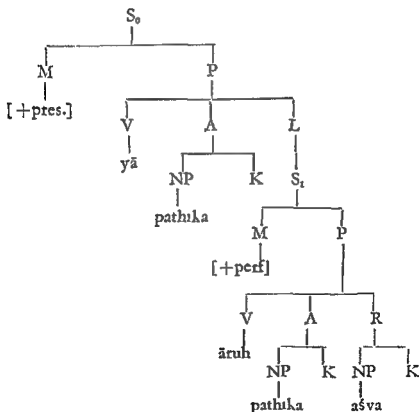
- 33". sevakah — [dīpikāyāh — prakāśe] — yāti
 A nom L O g l
 servant — of lamp — in light — goes
 (the servant goes in the light of a lamp)

The NP's 'asvena' in 32 and 'dīpikayā' in 33 cannot be specified as I. Unlike an I, the NP 'asvena' is [+animate], and can function as an A (as in sentence 34 below). The NP 'dīpikayā' can be interpreted either as derived from a complex structure underlying sentence 33' or as a complex structure as in sentence 33". The verb 'yāti' does not allow the occurrence of 'dīpikayā' as an I (as defined in II 3). Compare sentences 35, 35' which can be interpreted either as 33' or 33". Sentence 35 can allow the occurrence of an I, in addition to the occurrence of 'dīpikayā' as in sentence 35'. One may argue that in 35 (dīpikayā-khelatī : with lamp-plays) 'dīpikayā' may be an I, but, in that case, it would be interpreted as a toy.

34. asvah — yāti
 A
 horse — goes
35. bālahah — dīpikayā - { khelatī : plays }
 A nom I { likhatī : writes }
 boy — with lamp { khādatī : eats }
- 35' bālahah - { kalamena - dīpikayā - likhatī }
 A nom I I I
 with pen - with lamp - writes
 kalamena - dīpikayā - khelatī
 I I I
 with pen - with lamp - plays
 camasena - dīpikayā - khādatī
 I I I
 with spoon - with lamp - eats }

In sentences 32', 33' the items specified as Nom V⁸¹ and the item 'prakāṣe' in 33' are deleted optionally by later rules, and the NP's 'dīpikām' and 'dīpikāyāh' (in sentences 33', 33'' respectively) and 'aśvam' (in sentence 32') realise as 'dīpikayā' and 'aśvena' respectively (i. e. with 1-inflection). Sentences 32, 33 have the underlying structure as represented in figures XVI-XVII and XVIII-XIX respectively.

Figure XVI



81. The process of Nominalisation allows deletion of V Nom by a later rule

Figure XVII

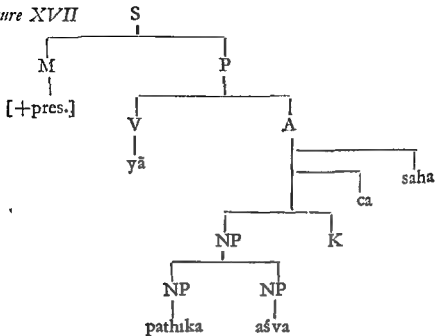


Figure XVIII

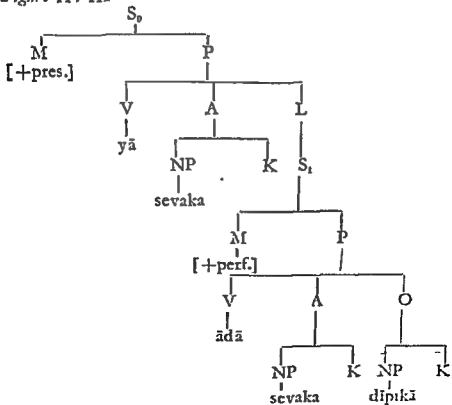
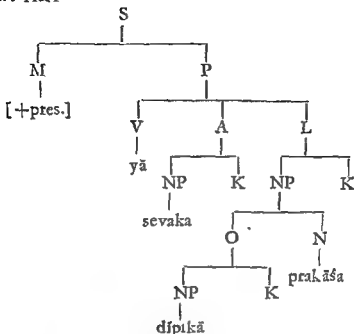


Figure XIX



Thus, in a sentence like 36 the NP's 'aśvena', 'dīpikayā' (as in sentences 32, 33) cannot be specified as I. A sentence like 36⁸² is derived from structures underlying sentence 36' (as represented in figures XX, XXI).

36. sa — aśvena — pathā — dīpikayā — gacchati
 A 1 1 1
 he — by horse — by road — by lamp — goes
 (he goes with a lamp on a horse along the road).

82. Patañjali, *Vyākaraṇa Mahābhāṣya*, ed. M. Pandit Śivadatta D. Kudāla (1912), Bombay, Nirmaya Sāgar Press, pp. 259-60 :

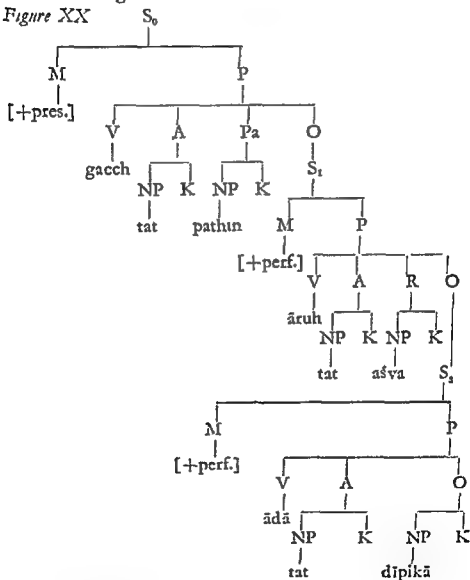
According to the commentator there are three 'karana-kāraka'-(INSTRUMENTAL)-relations in a sentence like 36. It is not clear how 'pathā' can indicate 'karana-kāraka'. Secondly, commentators have not taken into account ambiguous interpretation of 'aśvena' and 'dīpikayā' (sentence 36'). Thirdly, if 'karana' is defined as 'the most serviceable in the accomplishment of an act' (Roy, S, p 36 . Pāṇini's rule I. 4. 42), it is unclear how three actants can be 'most serviceable' simultaneously in relation to one action Cf. Singh, J D., (1970), p. 29.

36'. sa -	{ aśvena saha }	- pathā	{ dipikām ādāya }
A	{ aśvam āruhya }	Pa	{ dipikāyāḥ prakāṣe }
he -	{ with a horse }	- along	{ taking a lamp }
	{ riding a horse }	road	{ in the light of a lamp }

— gacchati

— goes

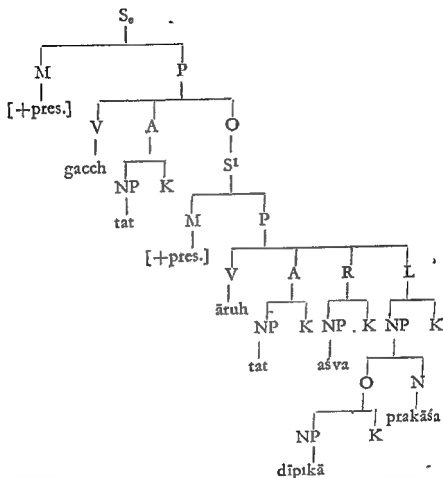
Figure XX



83. This interpretation is not represented in figures XX, XXII.

84. A later morphophonemic rule realises it as 'sa'.

Figure XXI



II. 3. 5. 2. Consider, next, sentences 37, 38, which may be considered to be derived from the same underlying structure.⁸⁵

37. *sā* — *churikayā* — *phalam* — *khaṇḍayati*
 A I O
 she — with knife — fruit — cuts
 (she cuts fruit with a knife)

85. Lakoff, G., (1968), pp. 4-29

- 38 sā—phalam—khandayitum—churikām—prayuNkte
 A O VNom O
 she—fruit — to cut — knife — uses
 (she uses a knife to cut fruit)

Lakoff, while advocating an identical underlying structure for sentences, like 37-38, refers to its justification in the form of the postulation of a significant grammatical generalisation on the basis of conditions of selection and co-occurrence, which now require to be stated only once in the description. Chomsky⁸⁶ has considered different examples to show that Lakoff's position is not tenable. In the first instance, Lakoff considers that a sentence with an instrumental adverbial phrase and a sentence containing a verb form like 'prayuNkte' (uses) are synonymous. But, this claim appears doubtful in Sanskrit as in English. Consider sentences 39, 40

39. ākhetakah - paśum - hantum - bānam - prayuNkte
 A R VNom O
 hunter — animal—to kill — arrow—uses
 (the hunter uses an arrow to kill the animal)
- 40 akhetakah — paśum — bānena — hanti
 A R I
 hunter — animal — with arrow — kills
 (the hunter kills the animal with an arrow)

Now, at least with one interpretation, the above sentences are not synonymous. In case the tense in sentences 39, 40 is interpreted as simultaneous with the point of reference (i.e. speaking), sentence 40 refers to the operation of killing, but sentence 39 refers to the operation prior to killing. Besides, sentences 39, 40 are not synonymous on another count also. Sentence 39 can have a continuation like 39, but sentence 40 cannot be continued like 40.

86 Chomsky N., (1969), pp 12 14, p 43 (f n 16) Cf. Koon, J G, (1971), pp 72 79

39. ākhetakah-paśum — hantum-bānam-prayukte
 hunter — animal — to kill—arrow—uses
 parantu — sa — palāyate
 but — that (animal) — escapes
 (the hunter uses the arrow to kill the animal, but
 that (animal) escapes)

- 40'. * ākhetakah — paśum — bānena — hanti—
 hunter — animal — with arrow— kills—
 parantu — sa — palāyate
 but — that — escapes
 (the hunter kills the animal with an arrow, but
 that (animal) escapes)

Thus, Lakoff's proposition that sentences 39, 40 have the same underlying structure and are synonymous, does not appear to be convincing. Besides, sentences 41 and 42 show that if Lakoff's suggestion is accepted, then, the I in 41, 42 would come from another structure (superordinate or embedded) but the L would not. There appears to be no justification, except the paraphrase with 'use', for postulating this differentiation between the I and the L.

41. (i) mātā — kalamena — patre — likhati
 A I L
 mother — with pen — on paper — writes
 (the mother writes on paper with a pen)
- (ii) matā - darvyā - pātre - dugdham - nidadhāti
 A I L O
 mother — with ladle - in pot milk - puts
 (mother puts milk in a pot with a ladle)
- 42 (i) matā - kalamam - patre - lekhitum - prayukte
 A O L VNom
 mother - pen - on paper - to write - uses
 (the mother uses the pen for writing on paper)

- (ii) matā — darvīm — pātre — dogdham —
 A O L O
 mother — ladle — in pot — milk —
 nidadhatum — prayuNkte
 VNom uses
 to put

(mother uses the ladle for putting milk in the pot)

If it is proposed that the L in 41, 42 also comes then we will have sentence 43(i) and 43(ii) in place of sentence 42(i) and (ii), and sentence 41 and 43 would not have similar interpretation. Consequently, Lakoff's position would be weakened further

- 43 (i) mātā - kalamam - patram - ca - lekhitum -
 O O
 mother - pen - paper - and - to write -
 prayuNkte
 uses

(mother uses a pen and paper for writing)

- (ii) mātā - darvīm - patram - ca - dugdham -
 O O O
 mother - ladle - pot - and - milk -
 nidadhātum - prayuNkte
 to - put uses

(she uses ladle and pot for putting milk)

Thus, it appears difficult to accept Lakoff's position in relation to the case category I

II 3 5 3 Now, it has been argued that the instrument of an argument may be used with an intentional or a non-intentional interpretation. An argument assigned the case-category Instrumental may have 'purposive' or 'accidental' sense⁸⁷. A sentence like 44 is ambiguous. The purpose-sense is indicated if sentence 44 is continued like 44. The accidental sense is expressed if 44 is continued as 44.

- 44 sevakah — vetrena — casakam — abhanak
 I O
 servant — with stick — cup — broke
 (the servant broke the cup with a stick)
- 44'. sevakah - anāyāsena - vetrena - caṣakam - abhanak
 servant - with effortlessnes - with stick - cup - broke
 (the servant broke the cup easily with a stick)
- 44" sevakah - anavadhānena - vetrena - casakam - abhanak
 servant - with carelessness - with stick - pot broke
 (the servant broke the glass with a stick carelessly)

Lakoff gives a number of 'grammatical contexts'⁸⁸ where the 'accidental' interpretation of a sentence is ruled out. He, then, proposes that 'if there are grammatical contexts in which one sense but not the other can appear, then it must be assumed that, two different deep-structures are involved'⁸⁹. However, he does not propose an underlying structure for the accidental interpretation⁹⁰. But, the question remains whether the difference between the accidental and purposive interpretation of a sentence like 44 is indeed a reflection of two underlying structures. Consider sentences 45, 46: In sentence 45, the hand is cut by a knife whether it happened accidentally or was done purposely. Thus, the instrumentality of knife is not affected by this ambiguity. Besides, the ambiguity remains even in sentence 45 wherein no overt I occurs.

- 45 bālakah — churikayā — hastam — alunat
 I O
boy — with knife — hand — cut
(the boy cut his hand with a knife)

88 Lakoff G, (1968), pp 8 he gives eight such contexts

89 Ibid

90 Lakoff, G., (1968), p. 8 'I am interested in this paper only in the purposive instrumental sense not in the accidental sense'

definitely taken note of spatio-temporal distinction, and, in some of the rules, the terms denoting time and space, occur together.⁹⁴

II. 4. 2. The case-categories mentioned above have been referred to as the 'local' functions of the category of case,⁹⁵ which include temporal as well as spatial distinctions.⁹⁶ Thus is the reason for their being considered as 'concrete' case-distinctions as opposed to others which are called 'grammatical' or 'abstract'.⁹⁶ Some linguists have recognised a general distinction of locative vs. directional as 'a particular manifestation of a more general distinction between static and dynamic'⁹⁷ (i. e. in/at vs. to/form).

94. Roy, S., (1920) *Vārttika on Pāṇini's rule I. 4. 31* : 'yataha - adhvakālānirmānam - tatra - pañcamī, - tadyuktāt - adhvānah - prathamāsaptamyau, - kālāt - 'saptamī - ca - vacyā' : the starting point in the measurement of the length of time and space takes 'pañcamī', the space measured takes 'prathamā' and 'saptamī', and the time takes 'pañcamī' (pp 62-63). Pāṇini's rule II 3 5 : 'kālādhvanoh - atyantāsamyoge - dvitīyā' : time and stage of journey take 'dvitīyā' when pervasion [i. e. continuity or extension] is implied' (pp 35). Pāṇini's rule II 3 6 'apavarge - tritīyā' if 'attainment of the end has to be indicated, time and stage of journey take 'tritīyā' when there is pervasion' [i. e. continuity or extension] as well (pp 38-39). Cf. Subrahmanya Sastri, P. S., (1957a), pp 116-117 *Vārttika on Pāṇini's rule I 4 51* 'kālābhāvādhvāgantavyāh - karmasamjñā - hyākarmānam' time, duration and the distance to be travelled take 'karmasamjñā' with reference to 'ākarmādhātū' time - 'māsam - āste / svapiti' [he stays / sleeps for a month etc], duration : 'godoham - āste / svapiti' (he stays / sleeps during the time of milking), 'krośam - āste / svapiti' (he stays / sleeps for two miles) Also see rule II 3 7. : 'saptamī - pañcamyau - kārakamādhye'.

95. Lyons, J., (1968), p 298

96. Lyons, J., (1968), pp 295, 299

97. Lyons, J., (1968), 300 Cf. Bennett, D. C., (1970), pp 28ff.

This distinction will not be considered independently with reference to the above-mentioned case-categories in this analysis. It is indicated (f n 91) that the case-categories SO, GO are not related to the spatio-temporal axes only (see II 4 4 5 and II 4 6). There have also been attempts to interpret the case-categories in terms of a localistic approach.⁹⁸ Fillmore⁹⁹ refers to one case-category locative, and assigns the distinctions like the one between 'in London/to London, to associated verbs. This treatment can, at least, be considered sketchy. However, in a recent paper¹⁰⁰, he has discussed this case category afresh and has postulated in its place the case-categories Place, Time, Source and Goal. Following Bennett¹⁰¹, he suggests the case-category Pa(th) also.¹⁰² Lechiste has mentioned a case-category like Terminative,¹⁰³ which corresponds to Ext(ent)¹⁰⁴ proposed here, as the latter term seems more appropriate.

II 4 3 The distinction between case-categories Place/Location and Time is not retained, henceforth. There is more than one reason for this. In the first instance, if the distinction is to be maintained uniformly, then this would apply to SO, GO and Ext as well, and, thus, the number of case categories would multiply, as in sentences 1-4 the case categories would have to be specified as place SO/GO,

98 Anderson, J M, (1971)

99 Fillmore, C J, (1968a), pp 25-26

100 Fillmore, C J, (1971) pp 251, 258-61. He mentions 'Place, Time' (p 251) and then changes over to 'Location Time' (p 258)

101 Bennett, D C (1970), p 2, also in *Semiotica* V 1 (1972), p 59.

102 Fillmore C J, (1971) p 259

103 Lechiste, I, (1969), p 334

104 Bennett also suggests Ext

time SO/GO, place Ext, time Ext, without any consequent advantage in description. There appears to be no significant syntactic evidence to justify this distinction despite the obligatory occurrence of spatial/temporal Locative or Ext with particular verbs. Because, such verbs allow temporal/spatial Locative also in their case-frames, in addition to obligatory spatial/temporal Locative or Ext, as in sentences 5, 6

- 1 yatrikah-madhyāhnāt-[sāyam yāvat] - abhramat
 A SO GO
 traveller - from midday - evening till - wandered
 (the traveller wandered from midday till evening)
- 2 mantri - chapra nagarāt - patna nagaram - ayāt
 A SO GO
 minister - from city of Chapra - to city of Patna
 went
 (from Chapra, the minister went to Patna)
- 3 sohanah — dinam — apathat
 A Ext
 ■ — day-long — read
 (s read day long)
- 4 Sa — krośam — ayat
 A Ext
 he — two miles — went
 (he went for two miles)
- 5 sa sâikilayānam - aṅgane - (sāyam) - nyasyati
 A O L L
 he -bicycle ~ in yard - (in evening) - keeps
 (he keeps the bicycle in the yard (in the evening))
- 6 (nagare) — mela — māsam — sthāsyati
 L O Ext
 (in town) — fair — month long — will stay
 (the fair will last for one month (in the town))

Secondly, Fillmore's acceptance of this distinction between

place and time is motivated by his 'one-instance [of one case-category] - per - clause principle.'¹⁰⁵ In a sentence like 7 there could be occurrences of both place and time.

7. chātrah — sandhyāyām — vidyālaye — āste
 D L(time) L(place)
 student — in evening — in school — stays
 (the student stays in the school in the evening)

However, this could be considered as an idiosyncratic aspect of the case-categories discussed in this sub-section (II 4). There are some other characteristics of L(place in Fillmore's sense) and Pa(th) which are peculiar to them (see II 4, II 4. 8), but on the basis of these no further specification of case-categories has been proposed. Thus, it does not appear unreasonable to ignore this occurrence of both place and time (which is specific to L, SO, GO) in a simple sentence.¹⁰⁶

II 4 4 The case-category L covers both spatial and temporal references. In a sentence like 7 above, thus, there is more than one occurrence of L. Another characteristic of L lies in the fact that it may involve multiple self-embedding.¹⁰⁷ Thus, in a sentence like 8, the three occurrences of L are to be considered as unitary, one within the other, and the NP 'pādapasya nīchah'¹⁰⁸ (of tree-below) indicates

105 Fillmore, C. J., (1971), p. 248

106 It may be argued that as no verb can have both L (time) and L(space) as obligatory parts of its case frames, one or the other may be considered as part of a superordinate structure. But, this would involve treatment of complex structures and as such is not incorporated in this analysis.

107 Stratton, C. R., (1971), p. 226

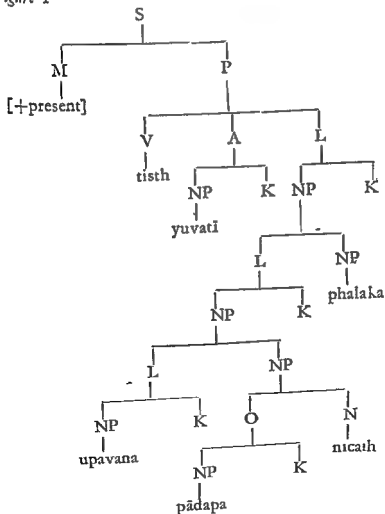
108 IV 3 2 1.1 7 This NP is a complex structure involving inalienable relationship, the schema is NP → N (O), the NP being dominated by L in this case.

the inalienable relation between the tree and the direction 'nicah' (below).

8. yuvatī - upavane - [pādapasya nīcah] - phalake -
 A L L g L tisthati
 young lady-in garden-of tree beneath-on bench-sits
 (the young lady sits on a bench under the tree
 in the garden)

Sentence 8 has the underlying structure given in figure I.

Figure I



Now, if the three occurrences of L in sentence 8 above, are not interpreted as one embedded within the other, the interpretation of the sentence would be unacceptable

Similarly, in a sentence like 9 all the three occurrences of temporal reference function as one contained within the other.

- 9 adya - rātrau - dasavādanasamaye - kolāhalah -
L L L O ajāyata
to day - at night - at ten hour time - noise - be-
came produced
(there was noise at ten at night today)

But, in a sentence like 10, the two occurrences of temporal references must be interpreted as instances of coordination. The occurrence of 'ca' in sentence 10 indicates coordination.¹⁰⁹

- 10 vrddhah - pratyūse - sandhyāyām - ca - bhramati
 A L L
 old - in dawn - in evening - and - walks
 (the old walks at the dawn and in the evening)

II 4 4 1. Now consider sentences 11(a c) in which L is a complex structure

- 11 (a) [gehāt-dakṣiṇā/dakṣiṇāhi/samīpam] -gauh-carati
 L O ab A
 from house - south - near - cow - grazes
- (b) [gehasya - dakṣiṇena / dakṣiṇataḥ / samīpam] -
 L O g gauh - carati
 A
 of house - south - near - cow - grazes

- (c) [geham -daksinena / samayā / nikasā] -
 LO acc to house - south - near - near -
 gauh - carati
 cow - grazes
 three=(the cow grazes near/south of the house)

three=(the cow grazes near/south of the house)
In the sentences 11a-c, like sentence 8 above, I has a complex structure, and is to be interpreted in accordance with a rule-schema $NP \rightarrow N(O)$ (f. n. 108), where the relation between the N and O is inalienable. The O is realised differently at the inflexional level (it is not genitive in all the three sentences 11a-c) which is partially a matter of free variation and is partially conditioned by the features on the lexical entry of the item concerned.¹¹⁰

Consider a sentence like 12 in which L may have an underlying structure following the schema $NP \rightarrow N(D)^{111}$, as in sentence 13

- 12 [suśilah - chātrah] - gurau - vasati
 A L 1
 well - behaved - student - in teacher - lives
 (a well behaved student lives near/obeys (his)
 teacher)
- 13 [susilah - chatrah] - [guroh - samīpam] - vasati
 A L D g
 well-behaved - student - of teacher - near - lives
 (a well-behaved student lives near (his) teacher)

II 4 4 2 Consider, next, sentences 14, 14, 15, 15 which have different surface realisation of the L, and which is not a complex-structure like the one in 12, 13

110 In sentences 11a c, the lexical item 'dakṣiṇa' is distinguished by the elements 'a/ahī (in 12a), 'ena/tah' (in 11 b), and 'ena' (in 12c), which condition the occurrence of the different inflexions. In the case of 'sāṃpam' 'samaya', 'nikasa', the lexical items themselves condition the inflexional variation.

111 The schema NP \rightarrow N(D) accounts for 'guroh-samipam' (in 13') (teacher's proximity), wherein the NP is dominated by L Cf IV 3 2 1 1 7

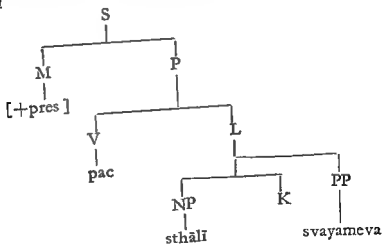
- 15". rājñī — rājabhavane — { nī } - vasati
 A L 1 { prati } lives
 queen — in palace —
 (the queen lives in the palace)
- 15"". rājñī — rājabhavanam — { nī } - vasati
 A L acc { prati } lives
 queen — in palace —

II 4 4 3 It has been mentioned earlier (II 1. 1) that the subjectivalisation-rule normally selects A/D for agreement with the V. But, consider a sentence like 16 wherein L, the only case-category in the frame, is selected for subjectivalisation.

16. sthālī — (svayameva) — pacati¹¹²
 L nom
 pot — (itself) — cooks
 (the pot cooks by itself)

Sentence 16 has the underlying structure as in figure II.

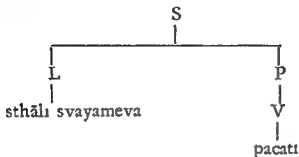
Figure II



112 The verb 'pacati' has also a case frame like [A, O, L—] as exemplified by a sentence like
 'sudaḥ - sthālyam bhaktam - pacati'
 A L
 cook - in pot - boiled rice - cooks

The process applied to sentences 10, 12, 16, 19 (in II 2 1 2) operates, and the final form (omitting intervening details) is as represented in figure III

Figure III



A rule deletes 'svayameva' optionally

It may be noted that in constructions like 16 above, if any other case-category co-occurs, L can never be selected for subjectivisation (16 below is unacceptable). A sentence like 16 conveys the sense of ease or effortlessness.

16 *	sthāli	—	odanam	—	pacati
	L		O		
	pot	—	boiled rice	—	cooks

II 4 5 The case category SO(urce) is considered as the 'starting point'¹¹³ of an action or process. The case-category SO may be assigned to entities which are animate or inanimate. Consider sentences 17-23

17	sa	—	gayanagarat	—	ayāt
	A		SO ab		
	she	—	from city of gayā	—	went
	(she went from the city of gayā)				

113. Fillmore C J, (1971), p 259 his previous definition of the place to which something is directed c(1969) p (116) does not appear appropriate. In the first instance, 'place' makes it limited in its scope and secondly 'to which something is directed' appears to refer to GO rather than to SO

- 18 viḥagah — gulmāt — dayate
 A SO ab
 bird — from bush — flies
 (a bird flies from the bush)
- 19 nadī — himālyāt — prabhavati
 A SO ab
 river — from Himalayas — appears
 (the river rises in the Himalayas)
- 20 chātrah — guroh — bhāṣikam - adhīte
 A SO ab O acc
 student — from teacher — linguistics — learns
 (the student learns linguistics from the teacher)
- 21 rāmah - kauśalyāyāh - ajāyata
 D nom SO ab
 r - from k - became born
 (r was born from k)
- 21 rāmah - kauśalyāyām - ajayata
 D SO l
 (r - in k - became born
 r was born from k)
- 22 rāmah - daśarathah - ajāyata
 D SO ab
 r - from d - became born
 (r was born from d (d = father))
- 22 * rāmah - daśarathī - ajāyata
 D SO l
 r - in d - became born

[Sentence 22, but not 22*, is acceptable. The acceptability of Sentence 21, as opposed to 22, perhaps, relates to the knowledge of the world: the mother, not father, bears the child in her womb.]

23. adyatah - avakāśah - asti
 SO Es
 from today - holiday - is
 (there is holiday from today).

The case-category SO, as indicated earlier (II. 4. 2.) need not refer to temporal and spatial entities only. In sentences 20-22, the case-category SO does not refer to time or place.

The case-category SO is distinguished from A/D/Es/R/O/F/I. It is distinct from A/D/Es/O as it can never be subjectivalised. Secondly, SO presupposes the occurrence of A/D/Es/O in the case-frame as in the sentences above. In certain constructions O, I (sentences 10, 12, 16, 19, II 2 1. 2) and L as well (II. 4 3. 3.) can be selected for subjectivalisation, but SO can never be. SO is distinguished from R/O/F/GO also in respect of the operation of the process of passivisation, as this process never applies to SO.

II 4 5 1. The case-category SO which occurs in sentences 17-23, characterises the entity from which an action/process which has been initiated by another actant (i. e. A/D and in certain constructions Es/O), emanates. But, there are constructions like 24-28 where this definition does not help, and the underlined NP's pose a problem for case-specification.

- 24 sa - simhāt - bībhreti
 D nom ab
 he - from lion - fears
 (he fears from the lion)

25. snuṣā - śvaśurāt - jihreti
 A nom ab
 daughter - in - law - father - in - law - feels shy
 (the daughter-in-law feels shy of her father-in-law)

26. *mūśah* - *otoh* - *nīlyate*
 A nom ab
 mouse - from cat - hides
 (the mouse hides itself from the cat)
27. *mātā* - *putram* - *agneh* - *nīśedhati*
 A nom R acc ab
 mother - son - from fire - checks
 (the mother keeps her son from fire)
28. *kṛśakah* - *gām* - *śasyebhyaḥ* - *vārayati*
 A nom R acc ab
 farmer - cow - from crops - checks
 (the farmer keeps the cow from the crops)

There appears to be three ways for the specification of the NP which has not been assigned a case-category in sentences 24-28 above : (i) SO as the starting point or point of departure for an action/process (as in sentences 24-28) is may be considered more abstract and the NP (in 24-28) specified as SO, (ii) the NP not specified as a case in sentences 24-28 above, may be explicated in terms of morphological features only (i. e. the ablative inflexion may account (for a case-category or none at all) in the context of the verb concerned); (iii) sentences 24-28 may be derived from complex underlying structures. The first option implies not only extraction of common semantic elements of verbs, but also abstraction of these common semantic elements at a level which may become uninteresting ultimately¹¹⁴ (see II. 4 5 2. also), and as such is not followed in this analysis. The

114. Cf Subrahmanya Sastrī, P S, (1957), pp 92 98 - he refers to Patañjali's views assigning the 'apādāna - karaka' (comparable to SO) to the unspecified NP's in the above sentences, which do not appear convincing and reduce the different lexical items to a point where nothing is left of their characteristics as individual lexical items.

third option has been followed by Sanskrit grammarians¹¹⁵ in the case of sentences like 25, which could be derived from a structure underlying a complex sentence like 25'.

- 25'. snusā - śvaśuram - dr̥ṣṭvā¹¹⁶ -
 A nom R acc V Nom
 daughter-in-law father-in-law - having seen -
 jihreti
 feels shy
 (having seen her father-in-law, the daughter-
 in-law feels shy)

But, it is not clear how sentence 24 is different¹¹⁷ from 25, and thus, justifies a derivation which is different from that of sentence 25 (assuming that the derivation of 25 is correct). But, there appears to be lack of syntactic justification to derive sentences 24-28 from structures underlying complex sentences. Sentences 27, 28 could be related to sentences 27', 28' wherein the underlined NP is complex in structure, but the problem of case-specification remains as it is.

- 27'. mātā - putram - agneh - samipāt - nisedhati
 A R O g ab
 mother - son - of fire - from proximity - checks
 (the mother keeps her son from the proximity of
 fire)
- 28'. kṛṣakāḥ - gām - śasyānām - samipāt - vārayati
 A R O g ab
 farmer - cow - of crops - proximity - checks

115 Roy, S, (1920), p. 62 Vārtika on Pāṇini's rule I 4. 31.

116 Cf. Roy, S, (1920), p. 62 : the Sanskrit grammarians would like to assign obligatorily a pre-verb to VNom in 25' which would lead to some morphological variation (i. e. 'saṃdṛṣṭvā' in the place of 'dr̥ṣṭvā'), which involves no change in the meaning. But, it is difficult to see any syntactic or semantic justification for the position of the Sanskrit grammarians.

117. The Sanskrit grammarians have not proposed a derivation comparable to that of 25, in the case of sentence 24.

There are reasons to derive 29, 30 from the structures underlying sentences 29' 30' respectively. In the first instance, the NP's with ablative inflexion (i. e. 'landana-ṭāvarāt' and 'āsanāt' respectively) limit the locational reference to 'yuvatī' and 'guruh' in 29, 30 respectively (cf. sentence 29' wherein the NP 'landana-ṭāvare' may be related to both 'yuvatī' and, 'bālakam', and sentence 29'' which is unacceptable); and, thus, will be derived from 'landana-ṭāvare sthitvā' and, 'āsane sthitvā' respectively (in sentence 29', 30').

29'. yuvatī - landanaṭāvare - bālakam-paśyati
 D L l R
 young lady - in London-tower - boy - looks
 (the young lady looks at the boy in the London-tower)

29*. yuvatī - landanaṭāvarāt - bālakam -
 D ab R acc
 young lady - from London tower - boy -
 landanaṭāvare - sthitam - paśyati
 L l VNom
 in London - tower - staying - looks
 (from the London tower, the young lady looks at the boy staying in the London tower)

Secondly, consider sentences like 30', 30''. If sentence 30' is interpreted like sentence 30'', the NP's 'āsane'¹ and 'āsane'² (in sentence 30') cannot be co-referential. It indicates that the NP 'āsanāt' (in sentences 30'') could only come from a structure underlying 'āsane-sthitvā' (in sentences 30', 30'').

30'. guruḥ - āsane¹ - sthitvā - śiṣyān - āsane² -
 A L l VNom R L l

teacher - in seat - having stayed - pupils - in seat -
sthitān - upadīṣati

VNom

staying - preaches

(staying in his seat the teacher preaches to his
pupils staying in the seat)

30''. guruh - āsanāt - śīsyān - āsane-sthitān -
A ab R L I VNom

teacher - from seat - pupils - in seat - staying-
upadīṣati
preaches

(from his seat the teacher preaches to the pupils
staying in the seat)

The above treatment of sentences 29, 30 raises the problem of the postulation of some form of abstract verb in the place of the VNom in sentences 29'-30', and though there are severe restrictions with regard to items that can occur as VNom in such constructions, the justification for the postulation of one or the other VNom is not clear at present. However, with this treatment of sentences like 29,30, assigning the case-category SO to the NP's unspecified in sentences 29,30, is not needed.¹¹⁸

II. 4. 5.2. Now, consider a sentence like 31, which contains a SO with complex structure (cf. SO in 17-23).

31. [gehāt / gehasya - antīkāt] - sevakah - yāti
SO O ab g ab A nom
from house/of house - from near - servant - goes
(the servant goes from near the house)

118. The case-categories are specified with reference to the underlying structures of sentences. Assuming that sentences 29-30 are derived from structures underlying 29', 30' there is no need to specify case-category SO in 29-30.

The complex structure of SO is to be interpreted in terms of the schema $NP \rightarrow N(O)$ indicating, thereby, the inalienable relationship between N and O¹¹⁹

Consider, next, sentences 32, 33 below and 20 above in which one might argue for the equation of SO with A.

- 32 mohanah - rāmāt - pustakam - kṛināti
 A nom SO ab O acc
 m - from r. - book - buys
 (m buys a book from r)

33. putrah - pituh - patram - grhnāti
 A SO ab O acc
 son - from father - letter - takes
 (the son takes a letter from his father)

There are, however, reasons for not accepting such an analysis. In the first instance, it has been mentioned (II 4. 5) that there is need to distinguish SO from A because of the reasons given therein. Secondly, such an analysis presupposes a componential treatment of verbs like 'adhite' (learns), 'kṛināti' (buys), 'grhnāti' (takes) (in sentences 20, 32, 33), and simultaneously takes into consideration verbs like 'adhyāpayati' (teaches), 'vikṛināti' (sells), 'dadāti' (gives) respectively.¹²⁰ But, in this analysis a verbal form is taken as one complete lexical unit (no componential analysis is taken into account, and case-categories are specified with reference to this verbal form, i.e. without taking into consideration any other verbal form related or otherwise. Thirdly, in a broader sense, A(gentive), in any case-frame, could be substituted with SO, or SO with A (if SO refers to

119 Cf IV 3 2 1 1 7

120 Anderson, J M (1971)

entities which are [+animate], as A is the initiator of the action denoted by the verb, though this is possible only when other verbal forms are taken into consideration) But, this substitution (of A with SO or vice-versa) does not appear to be appropriate. One distinction between A and SO (in case both refer to entities which are [+animate] as in 20, 32, 33) lies in the fact that A is the initiator of the action/process, but SO is not (with reference to a particular verb), and this is why in such constructions SO presupposes the occurrence of A in the case-frame. If SO in sentences 20, 32, 33 is re-specified as A, this significant distinction between A and SO is missed. Fourthly, the verbs 'adhyāpayati' (teaches) and 'dadāti' (gives) do not always imply verbs like 'adhīte' (sentence 20), and 'grhnāti' (sentence 33). Thus sentences 34, 35 are possible

34. guruh- śiṣyam-adhyāpayati-parantu-sa-no-adhīte
 A R
 teacher - student - teaches - but - he - not - learns
 (the teacher teaches the student but he does not learn)
35. rāmah- { mohanāya } -pustakam-dadāti-parantu-sa -
 { mohansya } O
 A GO
 r — for/of m — book — gives — but — he
 no - grhnāti
 not - takes
 (r gives a book to m but he does not take)

It is possible that a teacher may not teach a student, and yet he may learn from the teacher by overhearing him. I suspect that even in the case of 'krināti - vikrināti, (buy-sell), it is not always that whenever x sells to y, y buys it.

II. 4. 6. The case-category GO has been referred to as 'the destination'.¹²¹ Fillmore would like to assign this case-category to an entity without any specification of animacy. In sentences 36-40 the case-category GO co-occurs with A.

36. *sevakah — nagaram / nagarāya — yāti*
 A GO acc d
 servant — to town / for town — goes
 (the servant goes to the town)
37. *mohanah — rāme — pustakam — vikrīṇāti*
 A GO I O
 m. — in r. — book — sells
 (m. sells a book to r.)
38. *sa — priyāyām — patram — presayati*
 A GO I O
 he — in beloved — letter — sends
 (he sends a letter to his beloved)
39. *pitā — putrāya — pustakam — dadāti*
 A GO d O
 father — to son — book — gives
 (father gives a book to his son)
40. *guruh - chātrebhyah / chātresu - pustakāni - vitarati*
 A GO d I O
 teacher-for students / in students-books-distributes
 (the teacher distributes books to the students)

The case-category GO presupposes the occurrence of A. One characteristic that distinguishes GO from A/D (and also O/I/L) relates to its non-selection for subjectivisation. Thus a sentence like 41 would be unacceptable.

41. *pitṛā/pitā — putrah—pustakam—dadāti/dīyate*
 A : A nom GO nom O acc
 by father / father — son — book — gives

The case-category GO is distinct from R/O/F also. If the subjectivisation-rule does not apply to A/D, and R/O/F along with GO, is present in the case-frame, the process of passivisation follows, and R/O/F, not GO, is selected for agreement with the V. Thus, 40 and not 40*, is acceptable. In 40, O rather than GO has been subjectivised.

- 40 gurunā - chātrebhyah / chātresu - pustakāni-
 A 1 GO d GO 1 0 nom
 by teacher - to students / in students - books
 vitīryante
 are distributed
 (books are distributed to students by the teacher)

- 40* * gurunā - chātrāḥ - pustakāni - vitīryante
 A 1 GO nom O acc
 by teacher - students - books - are distributed

However, a sentence like 36 above is an exception to this characteristic of GO. If the subjectivisation-rule does not apply to A in sentence 36, the process of passivisation operates, and GO is optionally subjectivised. But, there is one condition that in such constructions containing verbs like 'yāti' and its equivalents, GO does not co-occur with F/R/O. Again, this exceptionality of GO is valid only when it occurs in the case-frame of verbs which are parallels of 'yāti' (go). Thus, sentence 36 is the alternative form of 36 above (in case subjectivisation rule has not applied)

- 36' tena — nagaram — yāyate
 A 1 GO nom
 by him — town — is gone
 ((it) is gone to the town by him)

The case-category GO, like SO, may be assigned to NP's which do not refer to time and place, as in sentences 37-40

Secondly, the NP specified as GO may be a complex structure as in sentences 42, 43.

42. sevakah — [gehāt / gehasya — antīkam] — yāti
 A GO O ab O g
 servant — from house / of house — near — goes
 (the servant goes near the house)
43. putrī — [pituh — antīkam] — yāti
 A GO D g
 daughter - of father - near — goes
 (the daughter goes near her father)

The case-category GO in sentences 42, 43 above, is allowed for by the schema $NP \rightarrow N \left(\begin{Bmatrix} O \\ D \end{Bmatrix} \right)$.

II. 4 6 1. Consider, next, sentences 44, 44', 44'' in which the GO has different surface-realisations which account for some semantic distinction. It is not clear, at present, how to get round this problem.

- 44 kāmukah / sa — dāsyā - dhanam - samprayacchate
 A nom nom GO i O acc
 lecher/he - with maid - servant - money - gives
 (a lecher/he gives money to the maid-servant)
- 44' sa — dāsyai — dhanam — samprayacchati
 A nom GO d O acc
 he — to maid servant — money — gives
 (he gives money to the maid-servant)
- 44'' * kāmukah — dāsyai — dhanam — samprayacchati
 A nom GO d O acc
 lecher - to maid-servant - money - gives

In sentence 44, the GO is realised inflexionally as 'i' and in 44' as 'd' along with the difference in the verb-ending (i.e. it is 'te' in 44 and 'ti' in 44') These surface-distinctions impose meaning-distinctions (sentence 44, 44') which may be culture-specific.

II. 4. 6. 2. In this section, a set of sentences (45-49) which contain NP's (unspecified with reference to any case-category) ending in 'd-inflexion (cf. GO in sentences 36, 39, 40), and which can be derived from complex structures underlying sentences 45' - 49', are considered.

45. mātā — putrāya — śete
 A nom d
 mother — for son — sleeps
 (the mother sleeps for her son)
- 45'. mātā — putram — prīnayitum — śete .
 A nom R acc VNom
 mother — son — to please — sleeps
 (the mother sleeps to please her son)
46. kanyā — chātrāya — tiṣṭhate
 D nom d
 girl — for student — stays
 (the girl stays for the student)
- 46'. kanyā — chātram — prīnayitum — tiṣṭhati
 D nom R acc VNom
 girl — student — to please — stays
 (the girl stays to please the student)
47. sevakah — phalāya — yāti
 A d
 servant — for fruit — goes
 (the servant goes for fruit)
- 47'. sevakah — phalam — āptum — yāti
 A nom O acc VNom
 servant — fruit — to get — goes
 (the servant goes to get fruit)
48. sa — gurave — pustakam — ānayati
 A d O acc
 he — for teacher — book — brings
 (he brings a book for his teacher)

- 48'. sa — gurave — dātum — pustakam — ānayati
 A nom GO d VNom O acc
 he — to teacher — to give — book — brings
 (he brings a book to give it to his teacher)
49. : svarnakārah — kundalāya — svarnam — nayati
 A nom d O acc
 goldsmith — for earring — gold — carries
 (the goldsmith carries gold for earring)
- 49'. svarnakārah-kundalam-nirmātum-svarnam-nayati
 A nom F acc VNom O acc
 goldsmith — earring — to make — gold — carries
 (the goldsmith carries gold to make an earring)

One may argue that Go defined as 'the destination' (II 4 5.), may be assigned to the unspecified NP's in 44-48 above. But, the definition, as given by Fillmore, needs further amplification. The case-category GO is to be assigned to an entity which is an obligatory part of the case-frame of the verb concerned, in addition to its being 'the destination' to which the action is directed. In 44-48, the unspecified NP's are not an obligatory part of the verbs (in 44-48), rather they are obligatory part of an embedded S

One might argue that there may be a semantic interpretive rule to account for the meaning (as indicated in 44'-48' above). But, if sentences 44-48 are derived via 44'-48', the problem of postulating an interpretive rule is avoided, and, besides, there is no problem with regard to case-specification. However, despite the restriction on the items that can occur under VNom in sentences 44'-48 (cf sentences 44' - 48' below), there remains the difficulty of recovering ¹²² the deleted items (specified as VNom in sentences 44 -48)

122. Chomsky, N. (1965), pp 132, 222 (f n 1)

- 45* mātā - putram* }
mother - son {
 } -śete
 } sleeps
- krodhayitum (to make angry)
rodhayitum (to make weep)
khādayitum (to feed)
hāsayitum (to make laugh)
tādayitum (to beat)
pāthayitum (to teach)
svāpayitum (to make sleep)

VNom

- 46*. Lanyā - chātram - *
girl — student -
- | | | |
|--|-----------------------|----------------------|
| | VINOM | |
| | { āhvayitum (to call) | } —tisthate
stays |
| | { dātum (to give) | |
| | { tādāyitum (to beat) | |
| | { dhartum (to catch) | |

V Nom

- 47*. sevakah-phalam* (kretum (to buy)
servant - fruit khāditum (to eat)
vikretum (to sell)
ganayitum (to count)
dātum (to give)
vodhum (to carry)
ānetum (to bring)
paktum (to cook)
chettum (to cut)

VNom

- 48*. sa -gurum- * { darsayitum(to show) }-pustakam-anayati
he - teacher - { pathayitum(to teach) }-book -brings

VNom

- 49*. svarnakārah-kundalam*
goldsmith - earring
- vikretum (to sell)
kretum (to buy)
kseptum (to throw)
chettum (to cut)
drastum (to see)
- svarnam
-gold
- navati

-пават1

-carries

 V_{nom}

As sentences like 45-49 are derived from complex structures underlying 45-49, the unspecified NP's in 45-49 need not be assigned a case-category.

There has been a suggestion¹²³ to treat 'for-phrases' (specified as Benefactives and Delegates)¹²⁴ as surface

123 Moore, T , (1971)

124 Moore, T., (1971), p. 1

phenomena and derive them from underlying Datives and Agentives. In Sanskrit, phrases comparable to 'for-phrases' specifying Benefactive and Delegative, are differently realised (as in 50-51 below). Sentence 50 cannot have the interpretation of sentence 51.

50. sa — mitrāya — vāsaḥ — krīṇāti
 he — for friend — dress — buys
 (he buys a dress for his friend)

51. mitrāt prati — sa — vāsaḥ — krīṇāti
 ab PP
 from friend — he — dress — buys
 (he buys a dress on behalf of his friend)

In so far as sentence 50 is concerned, it will have a derivation similar to that of 48 above. In other words, sentences like 50 will be derived from complex underlying structures and there will be no need to specify a case-category in sentences like 50.

Though the syntactic similarity (in respect of 'movement around objectives and passivisation')¹²⁵ between Benefactive (for-phrases) and Dative constructions in English, does not obtain in Sanskrit, yet the treatment of sentences like 45-50 as derived from complex structures falls in line with the suggestion that 'for-phrases' and their equivalents come from underlying complex structures.

As mentioned earlier, complex sentences are not taken up in this analysis, and hence they are not discussed further.

II. 4. 7. The case-category Ext(ent) has not been explicitly mentioned by Fillmore. But he hints¹²⁶ at the possibility of

125. Moore, T. (1971) p. 4.

126. Fillmore, C. J., (1971), p. 260.

and necessity for such a case-category, in view of sentences like 52, 53.

52. sevakah — dinam — abhramat

A Ext

servant — day-long — wandered
(the servant wandered day long)

53. nadī — krosam — vahati

O Ext

river — two miles — flows
(the river flows for two miles)

The case-category Ext can co occur with SO, GO as in 54.

54. chātrāvāsāt — [vidyālayam yāvat] — [ayam —

SO ab GO acc Es

from hostel — school till — this

mārgah] — krosam — asti

Ext acc

road — two miles — is

(from the hostel, this road is two miles up to the school)

Fillmore argues¹²⁷ that Ext cannot occur with SO. But, in sentences 54 (above) and 55 (below) Ext occurs with SO, GO, and, in 56, with L

55. advatah — [grismam yāvat] — trīṇ māsān

SO GO Ext

from today — summer till — three months

satram — sthasyati

O

session — will continue

(the session will continue, from today till summer, for three months)

- 56 sa — dīne — ghaṇtādvayam—vyākaranam—apathat
 A L Ext O
 he — in day - for two hours — grammar — read
 (he read grammar in the day for two hours)

II. 4. 7. 1. Consider, now sentences 57, 58 containing the underlined NP's which are to be derived from complex underlying structures in sentences 57', 58'.

57. [ayam vidyālayah]—chātrāvāsāt — krosah/krose —
 Es SO nom I
 this school - from hostel two miles/at two miles
 asti
 is
 (this school is two miles from the hostel)

- 57'. [ayam vidyālayah] — chātrāvāsāt — krośam —
 Es SO Ext
 this school — from hostel — two miles —
 atikramya — Δ — asti
 VNom L
 having crossed — Δ — is
 (having crossed two miles from the hostel, there is the school (in Δ))

- 58 adyatah — māse — dipotsavah — asti
 SO I Es
 from today - in one month - festival of lights - is
 (the festival of lights is one month ahead)

- 58 adyatah - māsam - atikramya - dipotsavah - Δ - asti
 So Ext VNom Es L
 from - one - having - festival of - Δ - is
 today month crossed lights
 (having passed one month from today, there is the festival of lights (in Δ))

The NP's underlined in 57, 58, do not mean that the school is two miles long or the festival is extending for one month, rather they indicate 'beyond two miles/one month,' and have to be interpreted in terms of sentences 57, 58, respectively. It may be noted that sentences 57, 58, have a dummy 'L' in the underlying structures (as in 57, 58,). The NP's underlined in sentences 57, 58, may be left without case indication as they include the L as well (as apparent from 57, 58), and, besides, case-categories need to be specified in underlying structures only.

Sentences like 57, 58, differ from sentences 51-55(above) with regard to the nature of Ext as is evident from sentences 59, 60. Assuming that the mountain and the school are in the same direction, sentence 59 is acceptable, but sentence 60 is not. This fact lends support to the position that the underlined NP's in 57, 58 come from the complex structures (in sentences 57, 58)

- 59 [asmāt sthānāt] - parvataḥ - krośam - asti
 So Es Ext
 from this place - mountain - two miles long - is
 vidyalayaḥ - ca - krośaḥ / krośe - asti
 Es nom I
 school - and - at two miles - is
 (from this place, the mountain is two miles long and
 the school is at two miles)
- 60 * [asmāt sthānāt] - parvataḥ - krośam - asti
 SO Es Ext
 from this place - mountain - two miles - is
 vidyalayaḥ ca - krośam asti
 Es Ext
 school - and two miles - is

II 4 7 2 Consider, next, sentences 61, 62. It is not clear how the semantic distinction between them, without

referring to morphological phenomenon, can be accounted for. In 61, not in 62, the interpretation indicates the completion or fruition of the action.

61. chātrah - dinena - upanyāsam - apathat

A Ext 1 O acc

student - day-long - novel - read

(the student read (completely) the novel during the day)

62 chātrah - dinam - upanyāsam - apathat

A Ext acc O

student - day-long - novel - read

(the student read the novel day-long)

The Ext in 61 is realised with an 1-inflection, and in 62 with an acc. It may suggest that a sentence like 61 could be derived from a structure like that underlying sentence 61', but it involves the status of adverbials, which is not discussed in this analysis

61' chātrah - dinam - upanyāsam - $\left. \begin{array}{l} \text{nihśesam} \\ \text{saphalam} \\ \text{completely} \\ \text{fruitfully} \end{array} \right\}$ -apathat
A Ext acc O acc
student - day-long - novel - $\left. \begin{array}{l} \text{completely} \\ \text{fruitfully} \end{array} \right\}$ - read

(the student read the novel day long completely/fruitfully)

A further distinction between 61 and 62 is related to negation¹²⁸. Sentence 61* is unacceptable (it may be noted that the adverbial in 61* cannot co-occur with negation), but sentence 62* is ambiguous.

61* chātrah - dinena - upanyāsam - no - apathat

A Ext 1 O

student - by day - novel - not - read

128 In this analysis constructions containing negat on have not been discussed.

- 62 chātrah - dinam - upanyāsam - no - apathat
 A Ext acc O
 student - day-long - novel - not - read
 (the student did not read the novel (at all) day-long)/
 (the student did not read the novel day-long
 (but for a while))

II 4 8 The case-category Pa(th) has been suggested recently¹²⁹, and is justified on the basis of constructions like 63, 64

- 63 landukah - gavāksena - vesmani - apatat
 O nom Pa i GO I
 ball - through window - in room - fell
 (the ball fell in the room through the window)
- 64 sevakah - ucchistam - mahānasāt - gavāksena -
 A O SO ab Pa i
 servant - leftover - from kitchen - through window
 [prākāśasya uparistāt] - mārge - kṣipati
 Pa O g GO I
 of fence from above - on road - throws
 (the servant throws the garbage on the road through
 the window over the fence)

The case-category Pa is distinguished from SO, GO, Ext, in the sense that it can occur more than once in a simple sentence (as in 64 above). It is distinct from L also, as its re-occurrence cannot be interpreted like L (in sentence 8) as an instance of multiple self embedding (i.e. one occurrence of Pa cannot be conceived of as contained within the other). Moreover, constructions like 64 cannot be interpreted as conjoined structure (cf sentences 10, 11)

129 Fillmore, C. J. (1971), pp 259-260 Cf. Bennett, D. C., (1972), pp 58-67

It is one action which is associated with two Pa's in sentence 64 above. It has been argued that this Pa case-category can be repeated indefinitely,¹³⁰ in a simple sentence. But, perhaps, it is possible theoretically only. In Sanskrit, it is doubtful whether more than two occurrences of Pa are possible without making the construction complex. One important characteristic of Pa lies in the fact that it relates to space-orientation only, and not to temporal orientation.

II. 4. 9. Fillmore is of the opinion¹³¹ that a case-category like Ext may combine SO, GO in certain constructions. In sentence 65, SO and GO indicate what is Ext in 66. Thus he proposes the possibility of a 'hypercase'¹³². But, as indicated in 55 (above), Ext can co-occur with SO and GO

65. [rāja-mārgah] - vidyālayāt -
 Es nom SO ab
 main road - from school
 rājendra-mārgam yāvat - asti
 GO acc
 rājendra road till - is

(the main road runs from the school to the rājendra road)

130. Stratton, C R., (1971), p 226

131. Fillmore, C J., (1971), pp 260-261

132. Fillmore, C J., (1971), p 260 'Expressions of duration and distance introduce new orders of problems for a case-analysis of verbs of movements and change because they somehow seem to combine the source and goal notions into a single unit, a 'hypercase' as it were'. But, as shown earlier, SO and GO refer to entities which are not restricted to temporal/spatial orientation. Secondly constructions like 61, 62 (II 4 7 2) containing Ext, are semantically distinguished as well. Thirdly, Ext can occur with SO and GO. Thus, Ext cannot be postulated in terms of a 'hypercase' combining SO and GO

both of them may be obligatory parts of a case-frame, but one or the other may be obligatory) to a superordinate structure. Besides, Fillmore is not explicit how this 'hypercase' is to be specified in the superordinate structure (i. e. under P or S: it cannot be under M as cases are not dominated by M). Thus, there appears to be no semantic justification for this suggestion, and so, it is not incorporated in this analysis.

III

NP-ASTI-NP CONSTRUCTIONS

III. In this chapter, constructions which contain the verb 'asti' (is), are discussed and specified as to the case-categories occurring therein. The discussion begins with a reference to the treatment of such sentences by the Sanskrit grammarians and by linguists (section III. 1.), and is followed by the analysis of the case-categories that can be assigned in such sentences (section III. 2.)

III. 1. The Sanskrit grammarians analyse syntactic structures within the theory of 'kāraka'-relations. However, they leave out sentences like 1 which are mentioned as examples of the occurrence of 'sasthi-vibhakti' (sixth-inflection i.e. g¹)

1. dhanīkasya — putrah — asti

g

of wealthy (man) — son — is

(wealthy man has a son, there is the son of a wealthy man)

Such constructions are excluded from the analysis of 'kāraka'-relations². Direct relations between the denotations of two nouns are excluded². Staal refers to such as 'nominal' sentences³. However, his discussion does not

1 'g' refers to genitive inflection as opposed to G(enitive) construction, which are discussed in chapter IV

2 Staal, J. F., (1967), p. 38

3 Staal, J. F., (1967), pp. 52-56-68

go beyond the word-order involved therein. Constructions like 1 (above) and 2 (below) have engaged the minds of linguists, who have classified such sentences as 'copulative' and 'existential'⁴

2. rāmah — bālakah — asti
 r. — boy — is
 (r. is a boy)

The copulative class consists of sentences like 3-7.

3. rāmah — [ayam chātrah] — asti
 Es T
 r. — this student — is
4. rāmah — chātrah — asti : class-membership
 Es T
 r. — student — is
 (r. is a student)
5. harinah — paśuḥ — asti : class-inclusion
 Es T
 deer — animal — is
 (deer is an animal)
6. phalam — madhuram — asti : property-assignment
 Es T
 fruit — sweet — is
 (fruit is sweet)
7. bālikā — gṛhe — asti : locational reference
 Es L
 girl — in house — is
 (the girl is in the house)

It may be noted that the L in a sentence like 7 can be a complex structure as in 7'.⁵

- 7' mardiram — [upavanasya daksinam] — asti
 Es L O g
 temple — of garden south — is
 (the temple is in the south of the garden)

4. Lyons, J., (1968), pp 388-90

5. See II. 1 3 1

The above sentences are distinguished from an existential sentence like 8

8. *iśvarah — asti*
 god — is
 (there is ■ God)

It is apparent that an existential sentence like 8 has one argument⁶ only, unlike sentences 3-7. But, as an existential sentence 8 is an exception. Because, a sentence like 9 is unacceptable unless it is in reply to a query or it has a locational argument as in sentence 10.

9. *simhah - asti*
 lion - is
- 10 *vane - simhah - asti*
 L Es
 in forest - lion - is
 (there is a lion in the forest)

However, a sentence like 11 with a verb 'bhavati' (becomes) and no locational phrase, is possible. Though, I suspect that sentence 12 as opposed to sentence 13, is not acceptable.

11. *simhah-bhavati-parantu-ekasṅgah - no - bhavati*
 lion - exists - but - unicorn - not - exists
 (lion exists but unicorn does not exist)
- 12 * *simhah - bhavati*
 lion exists
13. *simhah - vane bhavati*
 lion - in forest - exists
 (lion exists in the forest)

For the analysis of case relations, it appears difficult to justify the retention of this distinction between copulative (including locational) and existential, specially keeping in view sentences like 7, 7 and 10. If the distinction needs

6 See II 1 1 (f n 4)

to be maintained, it should be between sentences 3-6 and 7, 7', 10 i.e. copulative vs. existential and/or locational. Bach refers to such constructions as containing either an NP (in sentences 3-5) or an adjective (in sentence 6) or locational phrase (in sentences 7, 7' and 10).⁷ Fillmore calls such constructions (3-7' above) 'nominal predicates' or 'N be N type'.⁸ With slight modification, I will refer to such types, henceforth, as NP - *asti* - NP constructions.

III 1 1 The NP - *asti* - NP constructions (3-7', 10), though considered distinct from each other (as indicated by the characteristics mentioned on the right hand side above), are taken together for specification of the case-categories. The case-categories that may occur in NP - *asti* - NP constructions are discussed below.

The case-category Es(sive) is assigned to the arguments underlined in sentences 3-7, 10, the other case-categories being T(ranslative) and L(ocative). In sentences 7, 7', 10, E is specified for the NPs 'bālikā' (girl), 'śimhah' (lion) and 'mandiram' (temple) and L for the NP's 'grhe' (in house), 'upavanasya daksinam' (south of temple) and 'vane' (in forest).⁹ In sentences like 7, 7', 10, the L can never be selected for subjectivisation. Thus, a sentence like 14 is unacceptable i.e. there is no equivalent to the sentence 'the house has a girl in it'.

14 * grham — bālikā — *asti*
house — girl — is

In sentence 6, 'phalam' (fruit) is Es. In any construction like 6, the adjective (i.e. 'madhuram' (sweet)) cannot be Es.

7 Bach, E., (1967a), p. 462

8 Fillmore, C. J., (1968a), p. 84

9 L(ocative) is discussed in II 4.4

as the selectional features of 'madhuram' derive from the Es ('phalam') Compare sentence 6

- 6'. $\text{sitā} \quad \text{---} \quad \text{madhurā} \quad \text{---} \quad \text{asti}$
 $\text{Es} \quad \quad \text{T}$
 sugar --- sweet --- is
 (sugar is sweet)

modifier of 'īśvarah'. But, this ambiguity arises due to the exceptionality (which appears to be non-linguistic) of a sentence like 8 above.

17. īśvarah — dayaluh — asti

Es T

god — merciful — is

(God is merciful / there exists merciful God)

In sentences 4, 5 above, 'rāmah' and 'harinah' are Es, 'chātrah' and 'paśuh' in these sentences cannot be Es, because they take on the features of Es i.e. 'rāmah' and 'harinah' (cf sentences 24-30). Even if it is argued that there is a difference between 'chātrah' / 'paśuh' (sentences 4, 5) and 'madhuram' (sentence 6) taking on the features of Es, this does not affect the postulation of the same category T for all these i.e. 'chātrah, paśuh and madhuram'. Besides, I suspect that 'chātrah' and 'paśuh' cannot modify Es i.e. 'rāmah' and 'harinah' respectively ('madhuram' in sentence 6 does modify Es but in that case it is not a case-category distinct from Es). Thus sentences 18 and 19¹¹ are suspect.

18. ? chātrah rāmah - pāthaśālāyām - asti

student r. - in school - is

19. ? paśuh harinah - mārge - asti

animal deer - on road - is

Besides, Es in sentence 4 above, must be [+definite]. Thus a sentence like 20 is unacceptable, though 21 is acceptable.

20 * bālakah - chātrah - asti

boy - student - is

11. It may be asked whether 'chātrah rāmah' and 'paśuh harinah' (in 18, 19) are possible as appositionals. I doubt the correctness of this position in face of the untenability of postulating reduced relative clauses in Sanskrit (see sentences 53-54')

21. ayam bālakah - chātrah - asti
 this boy - student - is

It may be argued that sentence 20 is acceptable. But, it could be so only in a context which makes 'bālakah' [+definite]. In the case of sentences like 22, 'satyam' and 'saundaryam' both have the feature [+definite]. It may be noted that sentence 23 is unacceptable.

22. satyam - saundaryam - asti
 Es T
 truth - beauty - is
 (truth is beauty)

- 23.* satyāni - saundaryam / saundaryāni - santi
 truth - beauty / beauties - are

In sentence 3 above the Es, 'rāmah' and 'ayam chātrah' are both [+definite]. In such equative sentences either of the NP's may claim to be Es. There are two possibilities: either both NP's may be specified as Es or one of the NP's may be Es and a rule selects this Es for subjectivisation and the other is T. The choice between these two options, I leave as an open question. Compared with sentence 3 above, sentence 3' contains 'ayam chātrah' specified as Es.

- 3'. [ayam chātrah] - rāmah - asti
 Es T
 this student - r. - is
 (this student is r.)

The case-category Es as mentioned above (pp. 146-150), is assigned to NP's 'rāmah' (sentences 3, 4), 'harinah' (sentence 5), 'phalam' (sentence 6), 'bālikā' (sentence 7), 'mandiram' (sentence 7') and 'simbah' (sentence 10). This widening of the scope of Es is unlike that of Lehiste.¹² It

12. Lehiste, I, (1969), pp 332-33, Her Essive includes the underlined NP's in sentences like (i) NN is our ambassador in London' (ii) 'NN is the best student in the class' (iii) 'NN is one of the best students in the class', only.

is difficult to say what Fillmore would mean by Es, because he has mentioned nothing (except the term) in this connection.¹³

III. 1 2 Now, consider the case-categories that may occur in addition to Es in the above sentences. T(ranslative) is a case -category that may co-occur with Es. This case-category can be assigned to NP's 'ayam chātrah' (sentence 3), 'chātrah' (sentence 4), 'pasuh' (sentence 5), 'madh-uram' (sentence 6). This specification of the case-category T does not take into consideration the distinctions between these NP's mentioned on p. 146. There are two reasons for this. In the first instance, the features of Es determine the features of T. Compare sentences 24-27 with sentences 3-6 (above) respectively

- 24 sītā - [īyam chātrā] - asti
 Es T
 s. - this student - is
 (s is this student)
 sītā : [+feminine], [+singular]
 īyam chātrā : [+feminine], [+singular]
- 25 [te bālakāḥ] - chātrāḥ - santi
 Es T
 those boys - students - are
 (those boys are students)
 te bālakāḥ : [+masculine], [+plural]
 chātrāḥ : [+masculine], [+plural]
- 26 harināḥ - paśavah - santi
 Es T
 deer(s) - animals - are
 (deer are animals)

13 Fillmore, C J. (1968a), p. 84.

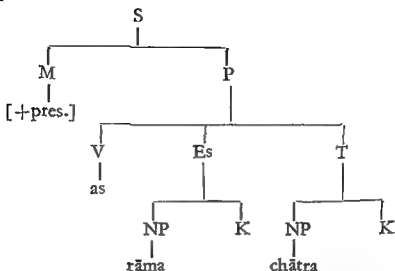
- harināh : [+masculine], [+plural]
 paśavah : [+masculine], [+plural]
 27 phalāni - madhurāni - santi
 Es T
 fruits - sweet - are
 (fruits are sweet)
 phalāni : [-mas.], [+plural]
 [-fem]
 madhurāni : [-mas.], [+plural]
 [-fem.]

However, there are exceptions as well. But, such NP's are lexically determinate to the features of [gender] and [number] as in sentences 28-30

28. sã - [mama mitram] - asti
 Es T
 she - my friend - is
 (she is my friend)
 sã : [+feminine], [+singular]
 mitram [-mas.], [+singular]
 [-fem.]
 30 sã - [mama dārāh] - asti
 Es T
 she - my wives - is
 (she is my wife)
 sã : [+feminine], [+singular]
 darah [+masculine], [+plural]
 asti [+singular]

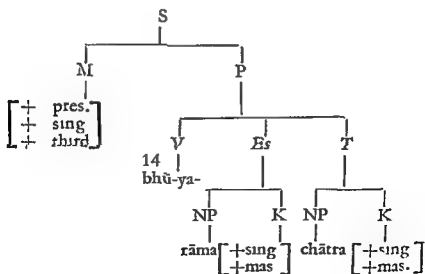
Secondly, the NP's specified as T, follow Es with regard to subjectivisation. If Es is not selected for subjectivisation (as the subjectivisation-rule applies optionally), T also cannot be selected for subjectivisation. Sentences 4 and 4' (below) have an underlying structure as in figure I

Figure I



Es is not selected for subjectivisation. Consequently, as T is never subjectivised, no case-category enters into agreement with the V, and the process of passivisation without subjectivisation (II. 1, II. 2) operates. The result is as in figure II.

Figure II



The affix-substitution rule replaces features by affixes. The final form is as in figure IV via figure III.

Figure III

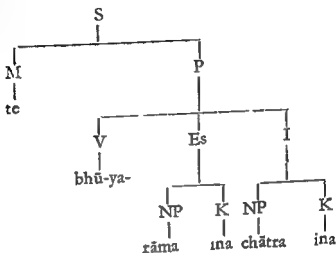
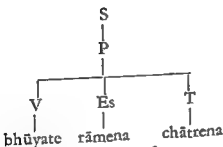


Figure IV



Thus, the alternative form of sentence 4 is realised as 4'.

4'. rāmena - chātrena - bhūyate

Es T

by r — by student - is become

((it) is become student by r.)

Similarly, sentences 3, 5, 6 have alternative forms as 3', 5', 6'.

3'. rāmena - [anena chātrena] - bhūyate

Es T

by r. - by this (by) student - is become

((it) is become thus student by r.)

5'. harinā - pasunā - bhūyate
 Es T
 by deer - by animal - is become
 ((it) is become animal by deer)

5". phalena - madhurena - bhūyate
 Es T
 by fruit - by sweet - is become
 ((it) is become sweet by fruit)

In all the above sentences (3' - 6') T could not be selected for subjectivisation even in case of non-subjectivisation of Es

III 1 3 The second case-category that may co-occur with Es is L(ocative)¹⁵ The case-category L includes temporal as well as spatial distinctions In sentences 7, 7', 10 above, the NP's 'grhe' (in house), 'upavanasya-daksīnam' (south to the garden) and 'vane' (in forest) are L

The third case category that may co-occur with Es, is SO(urce)¹⁶ Consider sentence 31

31 chātrah - vihārāt - asti
 Es SO
 student - from Bihara - is
 (the student is from Bihar)

III 1 4 The fourth case-category that may co-occur with Es is GO(al)¹⁷ In sentence 32 GO co-occurs with SO as well

32 [ayam mārgah] - chātrāv āsāt - [vidyālayam-
 Es SO GO
 this road - from hostel - school

15 For details see II 4 4

16 For details see II 4 5

17 For details see II 4 6

yāvat] - asti

till is

(this road runs from the hostel up to the school)

In sentences 33, 34 GO co-occurs with Es and L, SO remaining unspecified

- 33 gha te - [mukham yāvat] - jalam - asti
L GO Es

in pitcher - brim full - water - is

(there is water in the pitcher up to its brim)

- 34 guruh - vidyalaye - [sayam yāvat] - asti
Es L GO

teacher - in school - evening till - is

(the teacher is in the school till the evening)

III 1 5 Another case category that may co-occur with Es, is Ext(ent)¹⁸. Consider sentences like 35, 36

- 35 [ayam mārgah] - krosam - asti
Es Ext acc

this road - two miles - is

(this road is two miles long)

- 36 godhūmah - [daśa kilogrāmah] - asti
Es nom Ext nom

wheat - ten kilograms - is

(wheat is ten kgs in weight)

The case category Es may co-occur with an NP whose morphological representation is marked by 'genitive'¹⁹ as in sentences 1 and 37

- 37 [mama - putrasya pustakam] - asti
Es g nom

of my - of son book - is

(my son has a book / there is the book of my son)

18 For details see section II 4 7

19 For details see chapter IV

Sentence 37 is ambiguous and may have both interpretations given above. With either interpretation, the Es in a sentence like 37 is a complex structure. But, if this complexity of structure is accepted, a sentence like 37 should have a case-frame like [Es—], with only one case-category therein. It is unusual to have Es as the only case-category, as a sentence like 8 above, has been considered exceptional. Now, it may be that Es may occur as the only case-category in a case-frame, provided the Es is a complex structure containing an N marked with genitive.

III 2 It is evident from the above analysis that the case-categories that may be assigned to NP's in NP-asti-NP constructions are different from the case-categories like A/D/R/O/F. At this point it may be relevant to look into the suggestions of Fillmore regarding the NP-asti-NP constructions. Though he mentions²⁰ that the case-categories in the case-frames of NP-asti-NP constructions are different from A/D/R/O/F, he does not discuss them in detail. Their inclusion under the sub title 'Problems and Suggestions'²¹, perhaps, explains his sketchy treatment. He refers to case-categories like Es and T, but does not analyse them at all. He suggests that a sentence equivalent to 38 may have the case-category A assigned to 'rāmah'.

38 rāmah - mūrkhah - asti
 r - fool - is
 (r is a fool)

He argues that, in certain constructions, items like 'mūrkhah' (fool) behave like a V occurring in a case-frame like [A—]

20 Fillmore, C. J. (1968a) p. 84. "sentences of the N be N type represent a distinct sentence type from those involving any of the case relations discussed above."

21 Fillmore, C. J. (1968a) p. 81

But, this suggestion does not appear to be convincing as it is not clear, at all, why sentence 38 is different from sentences 3-6 above, regarding case-specification. Besides, in sentences like 39 which has a non-evaluative predicate, 'mama-bhrātā' cannot function like V, and as there is no syntactic difference between them it would not be proper to treat 'rāmah' in 39 as a case-category different from 'rāmah' in sentence 38.

- 39 rāmah - [mama bhrāta] - asti
 Es T
 r. - mv brother -
 (r. is mv brother)

It appears that sentences 3-6, 38, 39 should have a similar treatment for case specification.

Fillmore says that some new case-category may be invented. But he does not suggest any himself. His reference to Bach's suggestions²³ does not appear to be helpful. Bach proposes to derive constructions like 'adjective-noun' from constructions like 'noun-is-adjective'.²⁴ But this proposal suggests nothing about the case-categories that can be assigned to arguments in such a construction.

Bach says that in sentences comparable to NP-asti-NP constructions, verbs like 'asti' (copula) are 'distinguished syntactically from most true verbs by the fact that they have no selectional restrictions in themselves'.²⁵ The selection reaches across from subject to object or complement.²⁵ Usually the selection restriction is between subject and verb/verb and object/subject-verb-object. In a

22 Fillmore, C. J., (1968a), p. 84

23 Bach, E., (1968), pp. 98-104

24 Bach, E., (1968), p. 102, fn. 7

25 Bach, E., (1967), pp. 476-77

case grammar, selectional restrictions operate between the V and one or more case-categories. In an NP - asti - NP construction there does not appear to be any co-occurrence restriction between 'asti' and an NP. Consider the acceptable sentences 40, 42 along with 41, 43 which are not acceptable (it may be noted that sentence 43 is acceptable if a metaphorical sense is implied)

40. rāmah - phalam - khādati

A O

r — fruit — eats

(r. eats fruit)

41.* rāmah — phalam — asti

r. — fruit — is

42. rāmah — paśum — tādayati

A R

r. — animal — beats

(r. beats the animal)

43. rāmah — paśuh — asti

r. — animal — is

In the case of verbs, it should be enough to state co-occurrence restrictions in terms of the case-categories that may occur in their respective case-frames. But in the case of 'asti' it is not so. The case-frame [Es, T—] allows a sentence like 4 and also a sentence like 41. In other words Es and T remain at a level different from that of A/R/O (in sentences 40, 42).

However, the verb 'asti' does preclude certain case-categories from occurring in its case-frame. I(ative) is one such case-category that cannot co-occur with the Es as in 44

44 * tandulāh — odanam — santi

Es F

rice(s) — boiled rice — are

III. 3. In the preceding discussion, the case-categories that may occur in the case-frames of NP-asti-NP constructions have been specified with one assumption that 'asti' (is) is always present. But, in fact, this is not the case.

In a sentence which is not marked for past or future, the 'asti' is optional in surface structure. Thus in sentence 45 (a) the time-element expressed in the sentence is simultaneous with the point of reference in time (i. e. speaking). Optionally, it need not be expressed at all as in sentence 45(b). In sentence 46, 'āsīt' (was) refers to a time which is anterior to the point of reference (in time) and in sentence 47, 'bhaviṣyati' (will be) refers to a time which is posterior to the point of reference (in time).

- 45(a). [ayam janah] — adhyāpakah — asti
 Es T
 this man — teacher — is
 (this man is a teacher)

- (b). [ayam janah] — adhyāpakah
 this man — teacher

[It is not relevant to this discussion whether sentences like 45'/45 (b) involve a point of reference in time or none at all].

- 45' vane — simhah
 in forest — lion : (i) there is a lion in the forest.
 (ii) lions live in forests.

46. [ayam janah] — adhyāpakah — āsīt
 Es T
 this man — teacher — was
 (this man was a teacher)

- 47 [ayam janah] — adhyapaḥ — bhaviṣyati
 Es T
 this man — teacher — will be
 (this man will be a teacher)

The above mentioned characteristic of 'aṭi' has assumed some significance in view of the differing interpretations by grammarians and logicians regarding the status of the verb in a sentence in Sanskrit

The Sanskrit grammarians hold the view that every sentence ('vākya') consists of a verbal form ²⁶ Some scholars interpret the relevant rule as referring to a verb which ends in an affix of the 'ṭiN' class only and not to a verbal form in general ²⁷ Thus, a sentence like 48 which consists of a verb 'ayaṭ' (went) ending in 'ṭiN' class affix (i.e. is 'ṭiNant') is accepted as a sentence

- 48 ramah — ayat
 A
 r — went

This interpretation would bar 49 as a sentence as it contains a verbal form 'yataḥ' which ends in a 'sup' class affix (i.e. is 'subanta' like NP's) rather than a 'ṭiN' class affix

- 49 ramah — yataḥ
 A
 r — went

One distinction between 'ṭiNanta' and 'subanta' verbal forms, though irrelevant for specifying case categories (and thus is crucial) relates to gender. The 'ṭiNanta' verbal form 'ayaṭ' in 48 is gender neutral, but the 'subanta'

- 26 Bhartṛhari *Vākya-padīyā* II 1 2 Iyer K. A. S. (1969) p. 419 (61 19) Mahābhāṣya of Patañjali under rule II 1 1. Subrahmanya Sastry, P. S., (1957) vol. V, p. 204. ekatṭiN vākyaṃ
 27 Matilal B. K. (1966) p. 377 Subrahmanya Sastry, P. S., (1957) vol. V p. 204

verbal form 'yātah' in 49 is not (cf *sā yatā* : she - went). Even the scholars favouring the interpretation of the rule (f n 26) to include the 'tiNanta' verbal forms only, would treat 'tiNanta' and 'subanta' as verbal forms for case-specification.

Thus, the interpretation restricting the rule to 'tiNanta' verbal form only, does not appear to be appropriate, and the relevant rule must be interpreted to refer to verbal form in general. This interpretation would be in keeping with the statement of Patañjali,²⁸ that there is no sentence which does not contain a verbal form. It is significant that he uses the word 'kriyā' (verb) rather than the word 'tiNanta' (i.e. a form ending in a tiN-affix).

The above mentioned characteristics of 'asti' (i.e. its optional occurrence in certain constructions, and of a verbal form ending both in 'tiN-class and 'sup'-class of affixes) were picked up by the logicians who differed with the grammarians on accepting a verbal form as a necessary constituent of a sentence. The optional non-occurrence of 'asti' in sentences like 45(b) above, became a strong argument for them. They cited examples like 50²⁹ to prove their point.

50 trayah - kālāh

three - times

(there are three time-stages)

They argued that a verbal form like 'santi' (are) cannot be added (to 50), because 'santi' refers to one time-stage only (i.e. present). Again neither 'āsan' (were i.e. past) nor 'bhaviṣvanti' (will be i.e. future) can be added

28 'ra hi kriyāvivṛttimuktam vākyam asti' quoted in Maulal, H. K., (1966), p. 378 (f n 2)

29 Jhalakhar, B., (1893) p. 668, Rao, V. S., (1969), p. 13

Because, either of them refers to one time-stage only. To them, and perhaps to the grammarians also, it would be equally ludicrous to have a sentence like 50

50. trayah - kalah - santi āsan - bhaviṣyanti
three - times - are - were - will be

Thus, they conclude that the inadmissibility of a verbal form in sentence 50 above, shows that a sentence need not consist of a verbal form. However, in their arguments, the logicians do not take note of either physical reality wherein time may be conceived of as a continuum,³⁰ or of the fact that the reference to three time stages and the occurrence of a verbal form like 'santi' (are) in sentence 50 need not pin it down to a particular point of reference (in time) which is simultaneous with the event of speaking. In fact, 50* is perfectly grammatical and acceptable

50* trayah - kalah - santi
three - times - are
(there are three time stages)

The logicians, in arriving at their conclusion, were also influenced by ontological considerations in addition to the peculiarities of the Sanskrit language (i.e. optional deletion of 'asti' in certain constructions). To them, substance (dravya) was the repository of different properties i.e. qualities, actions³¹. Consider sentences like 51, 52, which have different interpretations for logicians and grammarians

51 ramah - viḥagam - pasyati
A R
r - bird - looks
(r looks at a bird)

30 Mandal K. K., (1968), pp 156-73

31 Chatterjee S. (1967) p 225 dravya or substance is the substratum of qualities and actions.

- 52 maitrah - tandulān - pacati
 A O
 m - rice - cooks
 (m cooks rice)

For a logician, the substance-the agent (i. e. rāmah /maitrah) is central in the sentences. In other words, sentences primarily refer to 'rāmah'³² the agent who is 'qualified by effort generating the activity of seeing which has a bird as an object' ('vihaga-karmaka - darsanānukūlakṛtīman ramah') and the agent 'maitrah'³³ who is qualified by the 'effort favourable to softening subsisting in rice' ('tandulanīsthavikṛtītyanukūla - kṛtīmān maitrah'). But, Sanskrit grammarians, or perhaps grammarians in general would interpret the sentences, as if, they refer primarily to an action or operation. In other words, to them the action is central in the sentence. Thus, these sentences refer to an action 'of seeing which has bird as object and m as its doer' ('vihaga - karmaka - darsanānukūla - vyāpāro rāma - kartrkah'), and to an action of producing softening in rice which has m as its doer ('tandulanīsthah vikṛtītyanakah maitrābhinnasrayakah vyāpārah') respectively.³⁴ Thus, Sanskrit grammarians accept the verb as central to the sentence i. e. as a necessary constituent of it. Logicians, on the other hand, consider that a sentence need not necessarily consist of a verb. In a linguistic analysis, the logicians' approach, based partially on ontological consideration and partly on the interpretation of nature and behaviour of 'asti' in a sentence, is not acceptable.

III 4 However, one problem remains . how to account for the occurrence of 'asti' (is) in a sentence with the option-

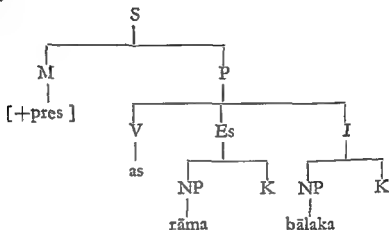
32 Matilal, M. K., (1966), pp 388-389

33 Rao, V. S., (1969), pp 13-19

34. Rao, V. S., (1969), p 7 ff

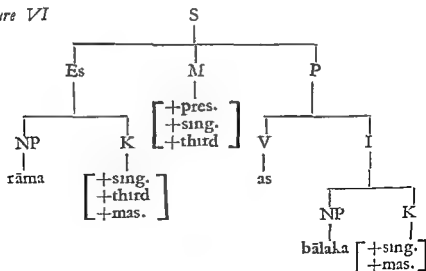
ality of its non-occurrence in the present. Chomsky³⁵ gives base rules to introduce a copula. Thus, there may be subsequent rules to account for its non-occurrence in certain contexts. Consider a sentence like 2 above which has the underlying structure as in figure V.

Figure V



The subjectivatisation-rule selects Es for agreement with the V, T takes on the features of Es, and the result is as represented in figure VI.

Figure VI



35. Chomsky, N, (1965), p 107.

The affix-substitution rule replaces features with affixes and the final form is as in figure VIII via figure VII

Figure VII

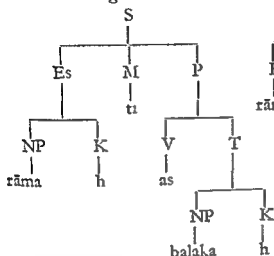
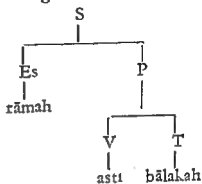
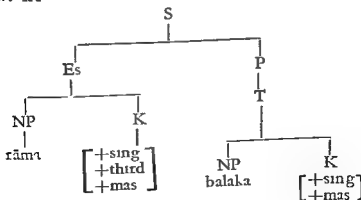


Figure VIII



Alternatively, at the stage of figure VI, a copula deletion rule optionally deletes the V, as the M shows [+present]. Consequently, the result is as represented in figure IX from figure VI

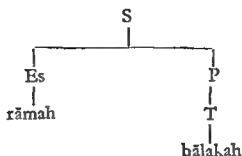
Figure IX



The affix substitution rule replaces the features with affixes, and the final form (omitting the intervening details) is as

represented in figure X

Figure X



Bach³⁶, however, makes the proposal that 'have' and 'be' need not be introduced in the base-component, but may rather be inserted transformationally. It may be mentioned that, in Sanskrit, there is no verb-form comparable to the 'have' of the English, as sentence 37 above indicates.

For English, Bach gives additional evidence in favour of his position. His rules which insert 'have/be' transformationally, also account for reduced attributive clauses³⁷ like 'I saw the man on the roof' ← 'I saw the man who is on the roof'. But, in Sanskrit, a proposal for transformational insertion of 'asti' based on simultaneous explication of reduced attributive clause cannot be sustained. A sentence like 53 cannot be interpreted as a reduced attributive form of sentence 54

- 53 bālahah — dāsam — mārgē — apaśyat
 D nom R acc L 1
 boy — servant — on road — saw
 (the boy saw the servant on the road)

36 Bach, E., (1967), pp 462-485

37 Bach, E., (1967), pp 463-466

- 54 bālahah — tam dāsam — apaśyat — yah — mārge -
 boy — that servant — saw — who — on road
 āsit
 was

(the boy saw that servant who was on the road)

In other words, it is difficult to assign a node which would dominate only 'dāsam' and 'mārge' in sentence 53 'mārge' in sentence 53 is L dominated by P as is any other case category in the sentence

It may be argued that a sentence like 54 is ambiguous unless some word-order is assumed and may be interpreted as 54'

- 54'. bālahah - yah - mārge - āsit - tam - dāsam -
 boy - who - on road - was - him - servant
 apaśyat
 saw

(the boy who was on the road, saw that servant)

But, with either of interpretations (54/54') the indeterminacy of locational reference remains, and the other of the two (i. e. 'bālahah' and 'dāsam') cannot be precluded from sharing the same location. I suspect that even if a reduced form of either 54 or 54' is possible, it would not be treated as different from 53 above

Though, a priori, neither of Bach's and Chomsky's proposals can be rejected, there seems to be no evidence elsewhere within Sanskrit syntax which would justify the transformational insertion of 'asti' as suggested by Bach. Thus, it appears appropriate to treat 'asti' like any other verb and introduce it in the base component. Secondly, it is not always the case that 'asti' can be optionally deleted in case the node M shows [+present]. Recall sentence 4' and its derivation (through figures I IV), and sentence 2

and its derivation (through figures V-VIII) It has been mentioned that a rule deletes the V optionally (as in figure IX), as the node M shows [+present] (figure VI) But, this rule does not operate with the configuration in figure II as ■ sentence like 4* is unacceptable

4* * rāmena — chātreṇa

Es 1 T 1

by r — by student

Thus the V-deletion rule is blocked if the subjectivalisation-rule has not applied (as in sentence 4)

Thirdly, in the derivation of some constructions like 46, 47 (as against 45 above), 'asti' must be introduced in the underlying structure, and it does not appear to be profitable to have a treatment for V in the derivation of sentences 3-7 above which is different from the one proposed for sentences 4, 3*, 5, 6* and 46, 47 above Even if it is argued that it is possible to specify the environment where 'asti' is obligatorily, as opposed to optionally, inserted, it is not clear how it would help, and would add to the complexity of rules without any compensatory advantage elsewhere

Considering all these arguments, there appears to be no case for not giving a uniform treatment to 'asti' while there is justifiable reason to treat it as any other verb

III 5 In this section, the status of 'asti' in sentences which are subject to the process of nominalisation, is examined Consider sentences 55-58* It may be noted that sentence 55 does not allow the optional deletion of 'asti' despite the fact that the matrix S (in figure XV), under the node M, shows [+present]. Sentence 55 is unacceptable

Sentences 55 58* are complex as the process of nominalisation is related to embedding of S(IV.3 1) Though this study, as mentioned in the beginning, does not account

for complex structures, this departure is considered necessary to examine such sentences with 'asti' occurring therein.

55. rāmah — gacchan — asti

Es nom VNom nom

r. — going — is

(r. is going)

55'.* rāmah — gacchan

r. — going

55'. rāmena — gacchatā — bhūyate

Es 1 VNom 1

by r. — by going — is become

((it) is become going by r.)

56. bālah — pustakam — paṭhitavān — asti

Es nom O acc VNom nom

boy — book — having read — is

(the boy has read the book)

56'. bālah — pustakam — paṭhitavān

boy — book — having read

(the boy has read the book)

56'. bālakena — pustakam — paṭhitavatā — bhūyate

Es 1 O acc VNom 1

by boy — book — having read — is become

((it) is become having read the book by the boy)

57. bālakena — pustakam — paṭhitam — asti

A 1 Es nom VNom nom

by boy — book — read — is

57'. bālakena — pustakam — paṭhitam

by boy — book — read

both=(the book is having been read by the boy)

57'. bālakena — pustakena — paṭhitena — bhūyate

A 1 Es 1 VNom 1

by boy — by book — by read — is become

((it) is become having been read by the book by the boy)

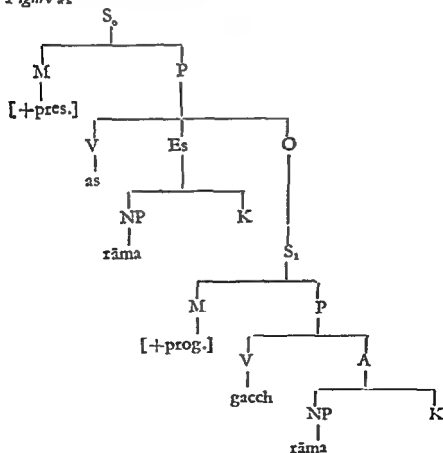
58. pustakam — paṭhanāya — asti
 Es nom VNom d
 book — to read — is

58'. pustakam — paṭhanāya
 book — to read
 (both=(the book is for reading))

58". pustakena — paṭhanāya — bhūyate
 Es i VNom d
 by book — to read — is become
 (it) is become by the book for reading)

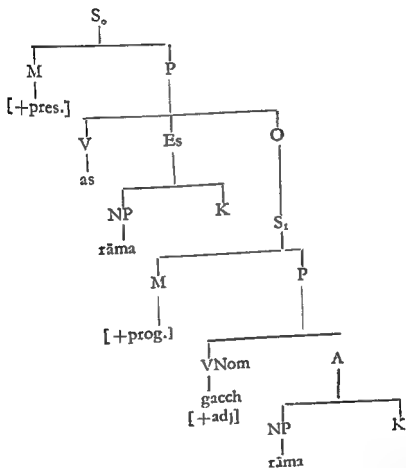
Sentences 55, 55' have the underlying structure as represented in figure XI.

Figure X



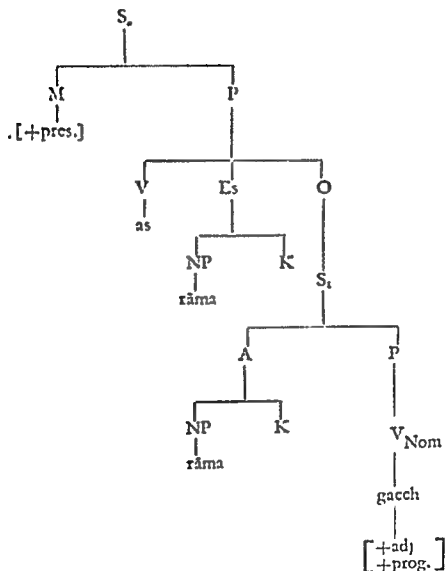
A nominalisation-rule applies and specifies V as VNom and attaches the feature [+adj] to VNom and the result is as represented in figure XI.

Figure XI



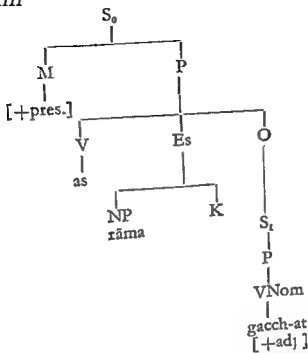
The subjectivalisation-rule selects A (in S_1) for agreement with the VNom. The feature [+prog.] under M is attached to the VNom and the M is deleted. The result is as represented in figure XII.

Figure XII ~



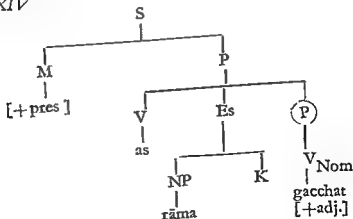
As the V_{Nom} shows the feature [+prog], the stem-element 'at' is attached to 'gacch' and the feature [+prog] is deleted. The item under 'A' is deleted under identity. The result is as represented in figure XIII.

Figure XIII



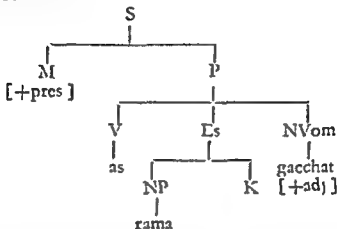
A node-pruning rule³⁸ deletes the node S_1 and a P-raising rule attaches the P to P in the superordinate S. The result is as represented in figure XIV.

Figure XIV



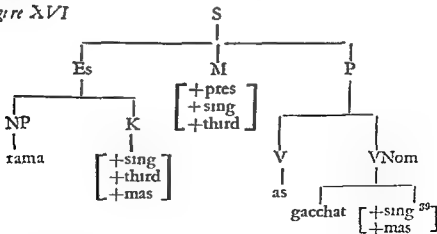
Now, a rule deletes P wherever it is dominated by itself (i.e. P). Thus, the node P(encircled) is deleted, and the result is as represented in figure XV.

Figure XV



Now the subjectivisation rule may apply optionally, and select Es for agreement with the V. It may be noted that as the NVom shows [+adj], it takes on the features of Es, whether Es is subjectivised or not. Es is selected for subjectivisation and the result is as represented in figure XVI.

Figure XVI



39 An informal notation for representing the specification of the verbal features. Some of these will have been introduced by

The affix-substitution rule replaces the features with affixes and the result is as represented in figure XVII. The final form is as given in figure XVIII.

Figure XVII

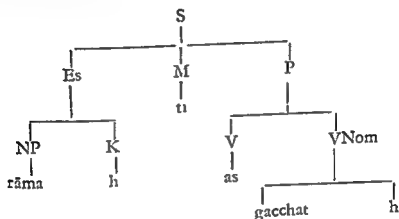
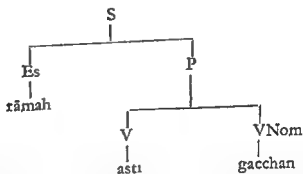


Figure XVIII



It may be noted that the copula-deletion rule cannot apply at the stage of figure XV (cf. figure IX) as the VNom shows the stem-element 'at'.

phrase-structure rule which rewrites a V as CS (e.g. +V) and some would have been introduced transformationally (e.g. the 'at' in the example is a reflex of transformationally introduced feature [+ prog.]).

Alternatively, at the stage of figure XIV, Es is not selected for subjectivalisation and the process of passivisation without subjectivalisation (II. 1. 1.) operates. The final form is as represented in figure XX (from figure XIV) via figure XIX (omitting intervening details).

Figure XIX

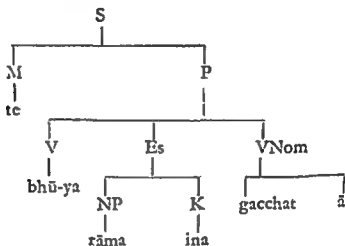
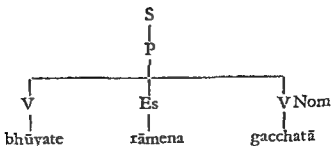
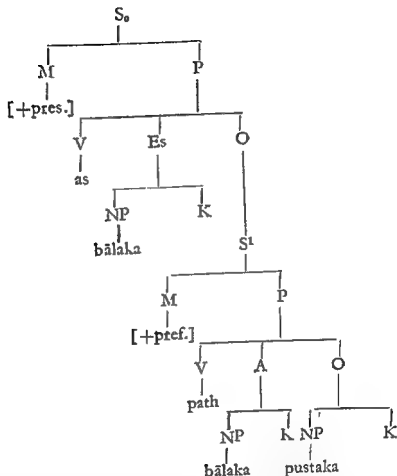


Figure XX



Consider, next, sentences 56, 56', 56'' which have the underlying structure as represented in figure XXI.

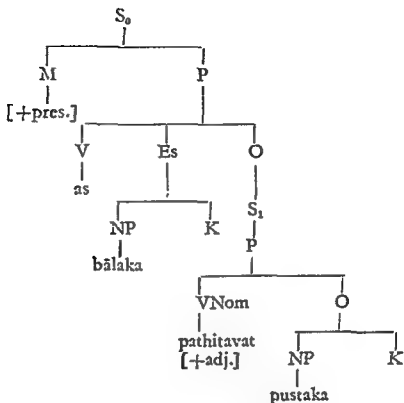
Figure XXI



The nominalisation-rule applies and specifies V as 'VNom' and attaches [+adj] to VNom, the subjectivalisation-rule selects A for agreement with VNom, the M-deletion rule attaches [+perf.] to VNom and deletes the node M. As the VNom shows [+perf.], stem-element 'tavat' is added to 'path' and [+perf.] is deleted. 'bālakah' under A is deleted under identity (cf. figures XI, XII, XIII)

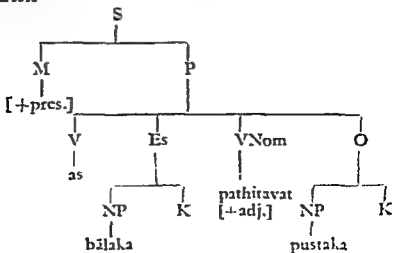
The result is as represented in figure XXII (omitting intervening details)

Figure XXII .



The node-pruning rule, the P-raising rule and the P-deletion rule apply (cf. figures XIV, XV), and the result is as represented in figure XXIII (omitting intervening details).

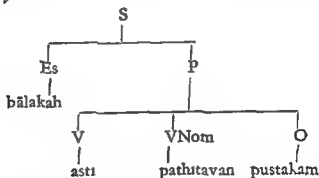
Figure XXIII



The subjectivalisation-rule selects Es for agreement with the V. As mentioned earlier (figure XV), VNom takes on the features of Es, as it shows [+adj], whether Es is subjectivalised or not. Secondly, it may be noted that even if Es is not selected for agreement with the V, O cannot be subjectivalised (i.e. the process of passivisation (II 1 1) cannot operate). Because, in case the subjectivalisation rule has operated (in embedded S) before P-raising, no case category which originated therein can be subject to the subjectivalisation rule or the process of passivisation with subjectivalisation after P-raising.

The affix-substitution rule replaces features with affixes and the final form (omitting intervening details) is as represented in figure XXIV (cf figures XVI, XVII).

Figure XXIV



The copula-deletion rule may apply optionally, after the subjectivalisation rule has applied (cf figure VI), and thus sentences 56, 56 are derived.

Alternatively, at the stage of figure XXIII, subjectivalisation does not apply and the process of passivisation without subjectivalisation operates. The affix-substitution rule replaces features with affixes and the result is as represented in figure XXV (omitting intervening details). The final form is as given in figure XXVI from which sentence 56*

is obtained. [It may be noted that as the subjectivalisation-rule has not applied, the copula-deletion cannot apply.]

Figure XXV

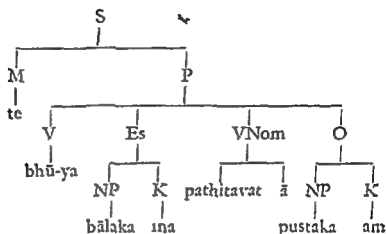
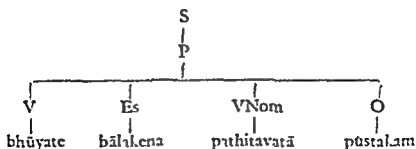
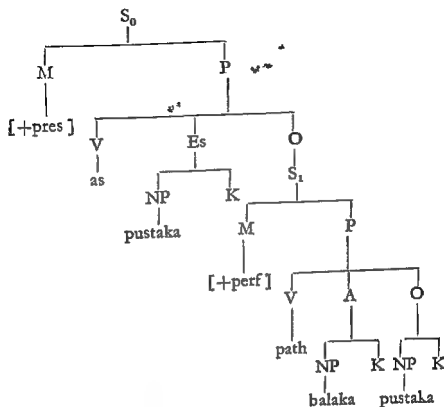


Figure XXVI



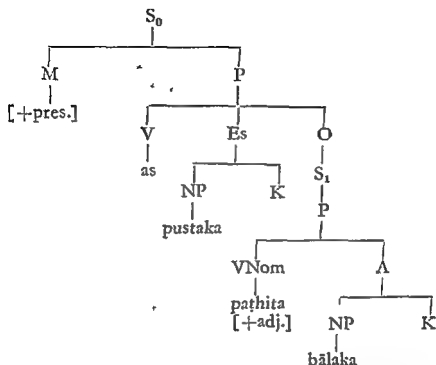
Consider, next, sentences 57, 57', 57" which have the underlying structure as represented in figure XXVII.

Figure XXVII



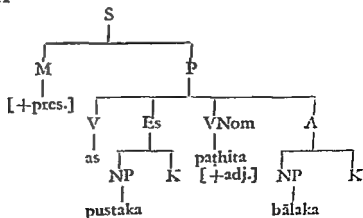
The configuration in figure XXVII is similar to that in figure XXI except that Es dominates 'pustaka' and not 'balaka' (as in figure XXI). The nominalisation-rule applies and attaches [+adj] to VNom in the embedded S, the subjectivisation-rule selects O for agreement with the VNom, the M-deletion rule attaches [+perf] to VNom in the embedded S and deletes the node M. As the VNom shows [+perf], the stem element 'ta' is added to 'path' in the embedded S and [+perf] is deleted. 'pustaka' in the embedded S is deleted under identity. The result is as represented in figure XXVIII (omitting intervening details).

Figure XXVIII



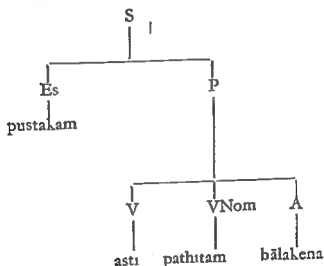
The node-pruning rule, the P-raising rule and the P-deletion rule apply (cf. figures XIV, XV), and the result (omitting intervening details) is as represented in figure XXIX.

Figure XXIX



The subjectivalisation rule may or may not select Es for agreement with the V. But, as mentioned earlier (figure XXIV), A cannot be subjectivalised. Es is selected for subjectivalisation, the affix-substitution rule replaces features with affixes. The final form is as represented in figure XXX (omitting intervening details).

Figure XXX

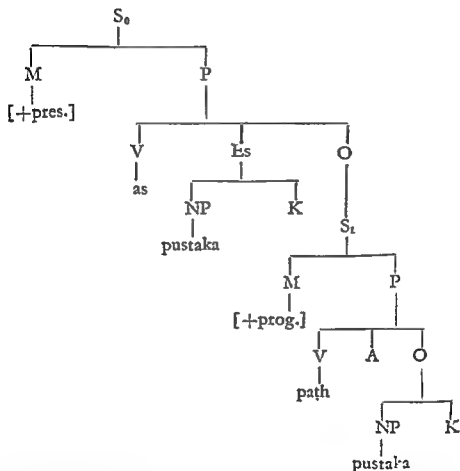


The copula deletion may apply optionally after the subjectivalisation-rule has applied, and thus sentences 57, 57* are derived.

Alternatively, if at the stage of figure XXIX Es is not selected for subjectivalisation, the process of passivisation without subjectivalisation operates, and through a derivation similar to that in figures XXV, XXVI, sentence 57* is derived

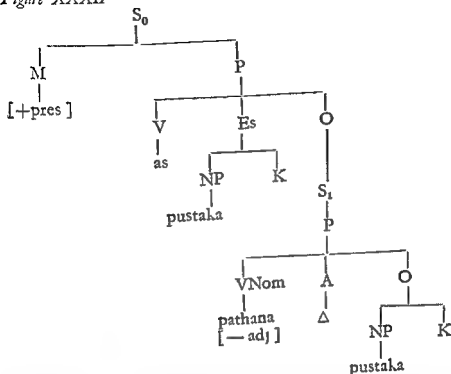
Consider, next, sentences 58, 58', 58" which have the underlying structure as in figure XXXI.

Figure XXXI



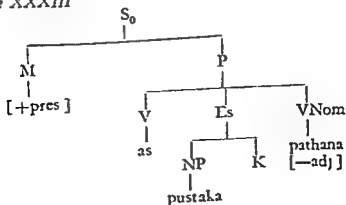
The nominalisation-rule specifies V as VNom and the subjectivalisation-rule, being optional, does not apply. Whenever subjectivalisation does not operate, the M node is deleted. The stem-element 'ana' is added to 'path' in the embedded S. The result (omitting intervening details) is as represented in figure XXXII.

Figure XXXII



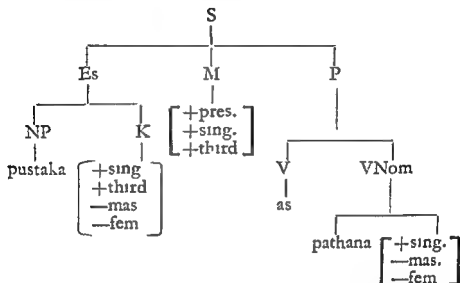
'pustaka' in S is deleted under identity, the dummy A is deleted, the node pruning rule deletes the node S₁, the P raising rule and the P deletion rule apply, and the result is as in figure XXXIII (omitting intervening details)

Figure XXXIII



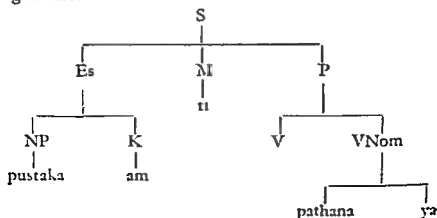
The subjectivatisation-rule selects *Es* for agreement with the *V*. It may be noted that the *VNom* shows [—adj.] and, hence it cannot take on the features of any case-category. The result is as in figure XXXIV.

Figure XXXIV



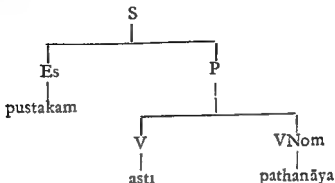
The affix substitution rule replaces the features with affixes. [A morphophonemic rule attaches *d(ative)* to 'pathana' under *VNom*] The result is as represented in figure XXXV.

Figure XXXV



The final form is as in figure XXXVI.

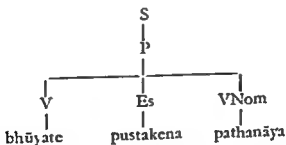
Figure XXXVI



The copula-deletion rule may delete the V after the subjectivisation rule has applied. Thus sentences 58, 58' are derived.

Alternatively, if at the stage of figure XXXIII, Es is not subjectivised, the process of passivisation without subjectivisation operates, and the final form is as represented in figure XXXVII (omitting irrelevant details).

Figure XXXVII



Thus, sentence 58' is derived from figure XXXVII.

III 6 The rules that operate in the derivation of the above sentences are as follow :

1. A Nominalisation rule specifies V as VNom and attaches [±adj] to the item under VNom

2 A Subjectival sation-rule applies optionally and selects a case-category for agreement with V/VNom. However, on the last cycle, the subjectivalisation-rule cannot select any case-category which has originated in an embedded sentence. But, VNom may be subjectivalised in case the subjectivalisation-rule has not applied to the configuration wherein VNom originated.

3 A M-deletion rule operates as follow :

- (i) if rule 2 has applied, the feature under M is taken on by the VNom and the node M is deleted;
- (ii) if rule 2 does not operate, the feature under M is not taken on by VNom and the node M is deleted.

4 A Copula deletion rule applies on the condition that subjectivalisation has taken place, and deletes optionally,

- (i) the copula under V if M shows [+pres] and if there is a VNom also, it does not show the stem-element 'at';
- (ii) the copula under VNom if it shows [+prog.].

5. A P-raising rule attaches P in the embedded S, to the P in the superordinate S ⁴⁰

6 A P-deletion rule deletes the node P if it is dominated by itself (i.e. P)⁴⁰

7 An Affix-substitution rule replaces the features with affixes.

40 These rules may be dispensed with, in case the scope of the node pruning rules is extended to delete the case-category dominating S and P as well. (Cf. Kiparsky, P. & J. F. Staal, (1969), p. 101 (figure 13))

IV

GENITIVE CONSTRUCTIONS

IV 1 This chapter deals with 'Genitive'¹ which refers to a surface-phenomenon rather than to a case-category in the Fillmorian sense. As explained later in this chapter, the Genitive is derived from so many diverse sources that it is considered appropriate to discuss them together with reference to their surface forms. By 'Genitive' is meant an NP with the marker 'sya' (i.e. 'genitive') and its variants². Thus, the Genitives i.e. NP's underlined in sentences 1-4 indicate the main range of different realisations of 'sya' (i.e. genitive)

1. *balaka-sya* — *pustakam*

G g
of boy — book
(boy's book)

[the NP 'balaka' is [+masculine] and ends in a vowel]

2. *balikā-jāb* — *sundaratā*

G g
of girl — beauty
(girl's beauty)

[the NP 'balika' is [+feminine] and ends in a vowel]

¹ G(enitive) refers to constructions with genitive inflexion

² The marker 'sya' is a cover term for its variant forms, occurrence of which depends on whether the NP has the feature [—mas] / [+fem] or [—mas] and whether it ends in a vowel or consonant.

The terms vowel and consonant are used as referring to phonological units and as defined in Sanskrit texts.

3. *madhu-nah* — madhuratā
 G g
 of honey — sweetness
 (honey's sweetness)
 [the NP 'madhu' is [— mas.] and ends in a vowel.]
 [— fem.]
4. *vidyārthin-ah* — āgamanam
 G g
 of student — coming
 [the NP 'vidyārthin' is [+masculine] and ends in
 a consonant.]

IV. 2. The later Sanskrit commentators³ did not assign a case-category to Genitive; though they included it in the section dealing with the 'kāraṅka's. Pāṇini's governing rule 'saṣṭhī śeṣe' (sixth (case-affix i. e. genitive) in the rest)⁴, has led to controversy among the Sanskrit commentators and grammarians with regard to its interpretation. In the first instance, they have tried to show that 'saṣṭhī' indicates a 'kāraṅka'-relation as in 'rājñah - puruṣah' (king's man)⁵. Then they try to interpret the term 'śeṣe'⁵ also as a 'kāraṅka.' So

3. Bhattojīdikṣita (1700 A. D.).

4. Pāṇini, II, 3. 50.

5. Iyer, K. A. S., (1969) pp. 324-325; : 'the relation of master and servant in the expression 'rājñah - puruṣah' : the king's man, implies a previous relation of action and accessory or rather of donor and recipient between the two [It is difficult to accept this assignment of 'donor-recipient' property to NP's 'rājñah', and 'puruṣah' as instrumental in establishing a kāraṅka - relation. In a sentence like 'rājā - puruṣam - ādiśati' (king-to man-orders), the same relation of master-servant (or master-recipient) obtains, but the kāraṅka-relation is of 'kartā-karma' (in relation to the verb ādiśatiḥ) and that is how the relation of master and servant also becomes a kind of 'kāraṅka' indirectly. The previous relation of master and servant is the cause and the later relation of master and recipient is the result. When the previous

and interpretation of the Genitive.⁷ In so far as the transformational model is concerned, it may be safely claimed that the Genitive in Sanskrit has not been discussed in any detail. Kiparsky and Staal have discussed the 'kāraka's and mentioned the Genitive in the list. But they also have left it without any discussion.⁸

IV. 3. The Genitive in Sanskrit (i.e. NP with a marker 'sya', f. n. 1) can be related to four types of constructions as in sentences 5'-8', 9, 9'.

7. Vāmana-Jāyāditya, vol. II, pp. 209-11 : 'karmādibhyah - anyah - prātipadikarthavyatiriktaḥ - svasvāmibhāvādisambardhah - śeṣah - tatra - sasthī - vibhaktiḥ-bhavati'... whatever is not covered by the rules governing kāraka relations and the rule II 3 46, is śeṣa and takes genitive. Cf. Patañjali - (ed) Kielhorn, F., (1892) vol. I. p. 463. Cf. Pāṇini - (ed) Vasu, S. C., (1891) vol I, p. 296 Cf. Speiser, J. S., (1886), P. 82 (f n 1) . 'kās on I. 1. 49 'bahavah - hi - śasthyarthāḥ - svasvāmyanantaraśamīpaśamūhaviḥkārāvajavādyāḥ' - Pāṇini seems to have not sharply defined the genitive's sphere of employment, at least if we explain his Sūtra (rule) II. 3 50 'śasthī-śeṣe' with the 'kāśikā', as meaning 'in all other instances (namely if none of the other cases taught (II 3. 1-49) be available), one should use the sixth case'. But then it is strange, Pāṇini has not said inversely 'śeṣe-śasthī' (cf. his constant use I 4 7, I. 4. 108, II. 2. 23, III. 3 151, VII. 2. 90). Now Patañjali gives a somewhat different explication .. 'karmādicām - avivakṣā - śeṣah' . 'the sixth case is required, if the categories object and the rest are not to be distinctly expressed' but tacitly 'Implied' Cf. Bhaṭṭojidīkṣita (ed.), Roy, S (1920), p. 70-71 . 'śeṣa' is 'other than what is said', 'what remains to discuss' etc. The 'kāraka's and the sense of a 'prātipadika' have been discussed. Hence such relations as that of the possessor and the possessed yet remain to speak of. These relations will be expressed by the the 'śasthī vibhakti'.

8. Kiparsky, P. and J. F. Staal, (1969) pp. 83-117

(i) In sentences 5'-8' the Genitive is a mere alternative surface-realisation of a case-category normally realised by different morphological forms, as compared with sentences 5-8.

5. sa — priyām — smaratī
D R acc
he — beloved — remembers

5. sa — priyayah — smaratī
D R g
he — of beloved — remembers
both = (he remembers his beloved)

6 chātrah — guroh — caranau — bhajate
A G g O acc
student — of teacher — feet — worships

6'. chātrah - guroh - caranayoh - bhajate
A G g O g
student - of teacher - of feet - worships
both=(the student worships his teacher's feet)

7. bālahah - phalaḥ - trpyati
D I 1
boy - with fruits - feels contentment

7'. bālahah - phalanām - trpyati
D I g
boy - of fruits - feels contentment
both=(the boy feels contentment of fruits)

8. dyūtakarah - śatam - pratidīvyati
A O acc
gambler - hundred - gambles

8' dyūtakarah - śatasya - pratidīvyati
A O g
gambler of hundred - gambles
both= (the gambler gambles hundred (pieces of money))

(11) In sentence 9, the genitive is derived through the process of nominalisation⁹ from an underlying case-category, thus 9 is transformationally related to sentence 9'.

9. lekhasya - racakah - guruh - āsit
 F g VNom A
 of article - writer - teacher - was
 (the teacher was the writer of the article)

9'. lekham - aracayat - guruh
 F acc A
 article - wrote - teacher
 (the teacher wrote the article)

(11-14) In sentences 10-11, the Genitive is related to what Fillmore would call alienable and inalienable possession¹⁰. Following Fillmore, the Genitive in sentence 11 may be developed according to the schema NP → N(S)¹¹. But, in sentence 10, the Genitive would not be developed in this way. Discussion of sentences like 10, 11 is taken up later (IV. 3 2)

10 tasyāḥ - vadanaṁ - sundaram - asti
 G g E nom T nom
 her - face - beautiful - is
 (her face is beautiful)

9 Nominalisation as a process is related to sentence-embedding (excluding relative structures), the embedded S being dominated by a case-category. The process of nominalisation in regard to 'NP-asti NP' sentences has been analysed in III 5. It may be argued that sentences like 9 have a claim to be included in the same chapter (i.e. III). But, as they contain Genitives as well, they are better taken up in this chapter. I have not assigned a case-category to 'racakah' (writer) in sentence 9. It is proposed that VNom need not be assigned a case category in NP-asti NP sentences or elsewhere.

10 Fillmore, C. J., (1968a), pp 61-81 Cf. Chomsky, N., (1970a), pp 200ff.

11 Fillmore, C. J., (1968a), p 66

- 11 tasyāḥ - bhavanam - sundaram - asti
 G g E nom T nom
 her - house - beautiful - is
 (her house is beautiful)

Constructions of the type exemplified in sentences 5-8 will not be discussed in this section. These relate to surface inflexional realisations of the same case category and can be handled by appropriate affix assigning rules. The remaining of the above mentioned constructions (i.e. 9-11) will be discussed below.

IV 3.1 As mentioned above, sentences like 9 are related to the process of nominalisation, and the Genitive in such constructions is derived from an underlying case-category transformationally. There have been arguments,¹² following Chomsky,¹³ that as the transformational derivation of nominals does not operate systematically in the case of derived and gerundive nominals, the Genitive in both constructions cannot be treated in the same way. In other words, the Genitive of gerundive nominals needs to be derived in a different way from all others. But in Sanskrit (fn 13), the process of nominalisation can be transformationally related to underlying structures in a systematic manner. A sentence containing a nominal would be derived from a deep structure involving specific case categories and

12 Stockwell R. P. *et al.* (1968), pp. 530-536, 712.

13 Chomsky N. (1970a) pp. 184-221. Chomsky makes a distinction between two types of nominalisation: gerundive nominal and derived nominal (e.g. J's refusing the offer vs. J's refusal of the offer) which differ in respect of (i) productivity of the process in question, (ii) the generality of the relation, (iii) and 'the internal structure of the nominal phrase'. The dichotomy is not of much consequence in so far as nominalisation in Sanskrit is concerned.

the Genitive in the former would derive ultimately from a case on the verb in the underlying structure. Thus, a good number of Genitives (in relation to nominals which are morphologically related to verbs in underlying structures) can be traced back to cases. In sentence 9' above, the Genitive 'lekhasya' (of article) is the alternative realisation of the case-category F (in sentence 9), conditioned by the VNom 'racakaḥ' (writer).

IV. 3. 1. 1. In this section, the constructions exemplified in sentence 9 (or in other words structures containing Genitives and related to the process of nominalisation) are described through their derivation. Sentences 12, 13 are described in detail. Sentences 14, 15 are described with respect to those details which differ from that of 12, 13. Sentences 12'-15' are alternative realisations due to the non-operation of the subjectivalisation-rule which has been referred to earlier, and hence need not be taken up again.

12. anudāradalasya - netā - harimohanah - yāti
 G g VNom A nom
 of Conservative party - leader - h. - goes
 (h., the leader of the Conservative party, goes)
- 12'. anudāradalasya - netrā - harimohanena - yāyate
 G g VNom i A i
 of Conservative party - by leader - by h. - is gone
 ((it) is gone by h. the leader of the Conserva-
 tive party)
13. prabhuḥ - sevakasya/sevakena - aśvasya - nagarāya/
 A nom G g i G g GO d
 master - of servant/by servant - of horse - for city
 nagaram - nayanam - ādiśati
 GO acc VNom acc
 to city - leading - orders

(the master orders the leading of the horse by the servant to the city)

- 13'. prabhunā - sevakasya/scvakena - aśvasya - nagarāya/
 A 1 G g 1 G g GO g
 by master - of servant/by servant of - horse-for city/
 nagaram - nayanam - ādiśyate
 GO acc VNom nom

to city - leading - is ordered

(the leading of the horse to the city by the servant
 is ordered by the master)

- 14 pathikasya - jalasya - pipāsa - avardhata
 G g G g VNom nom

of traveller - of water - desire to drink - increased
 (the desire of the traveller to drink water increased)

- 14' pathikasya - jalasya - pipāsayā - avardhyata
 G g G g VNom 1

of traveller - of water - by desire to drink - was in-
 creased

((it) was increased by the desire of the traveller to
 drink water)

- 15 balakasya - rogasya / rogena - rujā - vardhate
 G g G g 1 VNom nom

of boy - of disease/by disease-torment - increases
 (the torment of the boy by the disease increases)

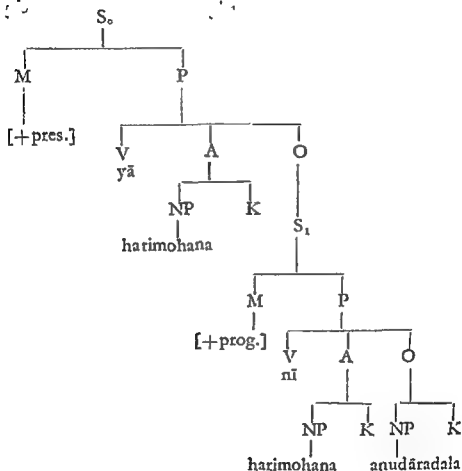
- 15'. bālakasya - rogasya/rogena - rujayā - vardhyate
 G g G g 1 VNom 1

of boy - of disease/by disease - by torment - is in-
 creased

((it) is increased by the torment of the boy by the
 disease)

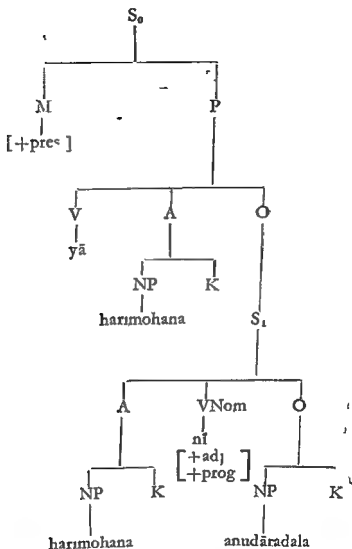
Sentences 12, 12' have the underlying structure as in figure I.

Figure I -



The nominalisation-rule specifies V as VNom and attaches the feature [+adj.] to VNom in S₁. A in S₁ is subjectivalised. The feature [+prog.] is attached to VNom and the node M is deleted. The result is as represented in figure II (omitting irrelevant details.)

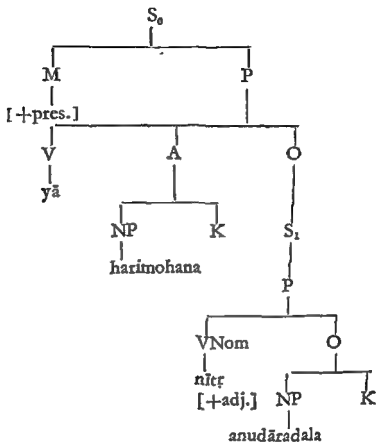
Figure II



17

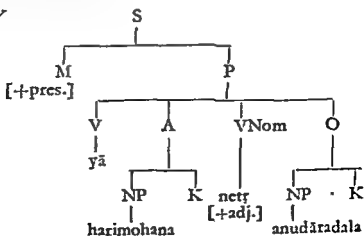
As the VNom in S_1 shows [+prog] the stem element 'tr' is added to the item under the VNom and the feature [+prog] is deleted. The item under A in S_1 is deleted under identity with the superordinate NP. The result is as represented in figure III (omitting irrelevant details)

Figure III



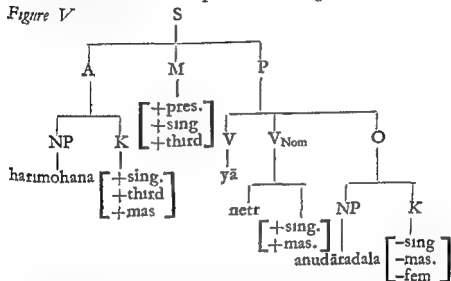
The node-pruning rule, the P-raising rule and the P-deletion rule apply, and the result (omitting intervening details) is as represented in figure IV.

Figure IV



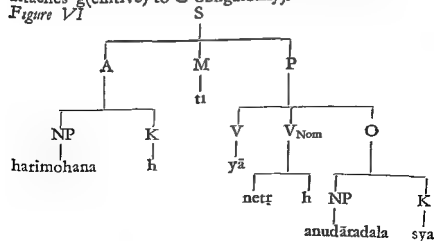
The subjectivalisation-rule may or may not select 'A' for agreement with the V, but the V_{Nom} will take on the features as it shows [+adj]. Secondly, even if A is not selected for subjectivalisation, the process of passivisation cannot operate and O cannot be selected for agreement with the V (see figure XXIV, III. 5). A is selected for subjectivalisation and the result is as represented in figure V.

Figure V



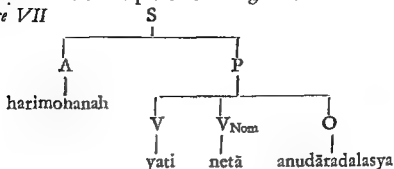
The affix-substitution rule replaces the features with affixes and the result is as in figure VI (a morphophonemic rule attaches *g*(enitive) to *O* obligatorily).

Figure VI



The final form is as represented in figure VII.

Figure VII

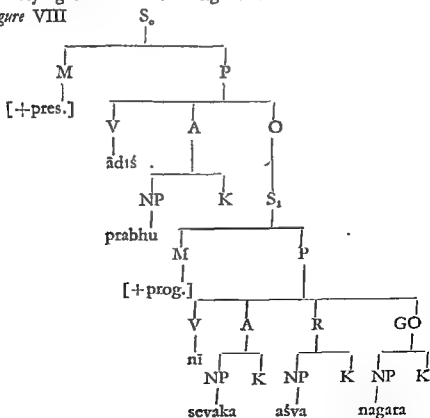


Thus, sentence 12 is derived from figure VII.

Alternatively, at the stage of figure IV, if A is not selected for subjectivisation, the process of passivisation without subjectivisation operates (see II. 1. 1.) and sentence 12 is derived.

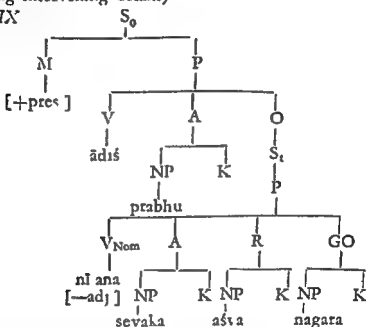
Consider, next, sentences 13, 13' which have the underlying structure as in figure VIII.

Figure VIII



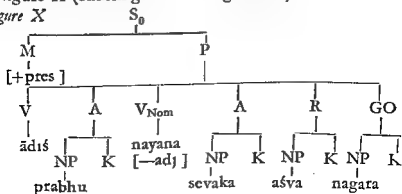
The Nominalisation-rule specifies V as V_{Nom} and attaches the feature $[-adj]$ to V_{Nom} (in S_1), the subjectivisation-rule does not operate, the M deletion rule deletes the node M, the stem element 'ana' is added to the item under V_{Nom} . The result is as represented in figure IX (omitting intervening details)

Figure IX



The node pruning rule deletes the node S_1 , the P-raising rule and the P-deletion rule apply, and the result is as represented in figure X (omitting intervening details)

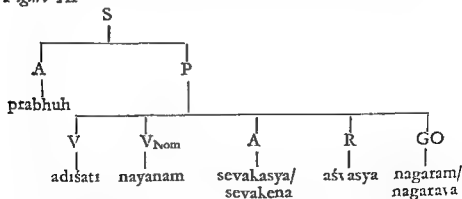
Figure X



The subjectivatisation rule may select A (of the matrix S) for agreement with the V. Recall the subjectivatisation rule explicated earlier (figure XXIV, III 5), which bars the selection of any case category which has originated in the embedded S, even if A (in the matrix S) is not selected for agreement with the V. That statement holds good here as well. However, there is one point to be noted. The subjectivatisation rule has not applied to S_1 (see figure IX above) and no case category has been selected for agreement with the VNom (in S_0). Under these circumstances, the VNom behaves like an O, and may be selected for the process of passivisation in case A is not selected for subjectivatisation.

A is selected for subjectivatisation, the affix substitution rule replaces features with affixes and the final form is as represented in figure XI. (It may be noted that morphophonemic rules attach g(enitive) obligatorily to R ('asva'), optionally to A ('sevaka'), i(nstrumental) is attached alternatively), and d/acc to GO ('nagara').

Figure XI

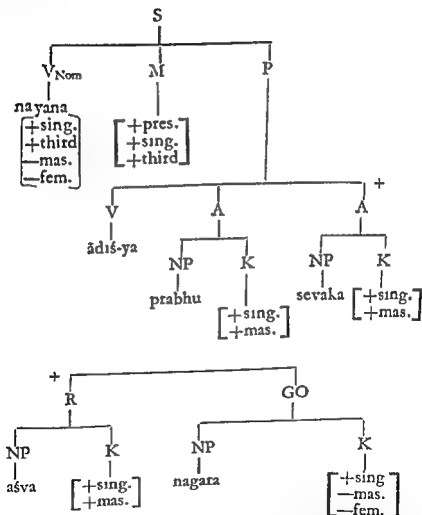


Thus sentence 13 is derived from figure XI.

Alternatively, if A is not selected for agreement with the V, at the stage of figure X, the process of passivisation, operates and the VNom ('nayana') is selected for

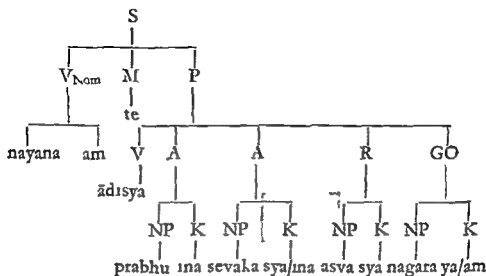
agreement with the V. The result is as represented in figure XII (from figure X).

Figure XII



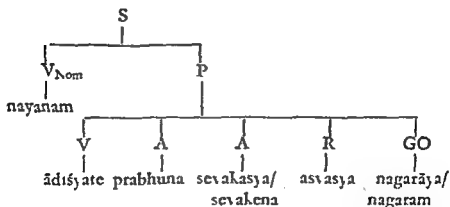
The affix-substitution rule replaces the features with affixes (morphophonemic rules attach 'g/i' to A(of the embedded S), 'g' to R, 'd/acc' to GO). The result is as represented in figure XIII.

Figure XIII



The final form is as in figure XIV

Figure XIV



Thus, sentence 13 is derived from figure XIV

Consider, next, sentences 14, 14 and 15, 15 which have the underlying structures as represented in figures XV and XVI respectively

Figure XV

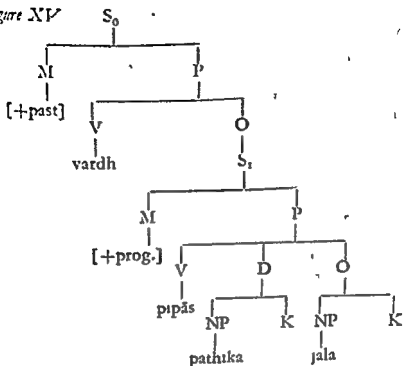
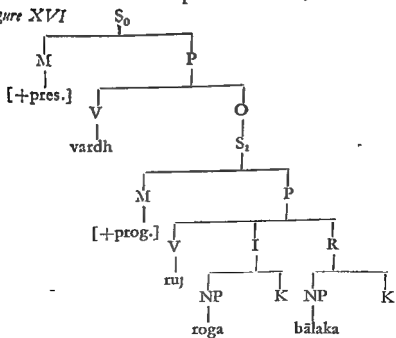


Figure XVI



The nominalisation-rule specifies V(in the embedded S) as V_{Nom} and attaches [$-adj$] to V_{Nom} , subjectivalisation does not operate, the node M is deleted, the stem element 'ā' is attached to the items under V_{Nom} of the embedded S in figures XV and XVI. The result is as represented in figures XVII and XVIII respectively (omitting intervening details).

Figure XVII

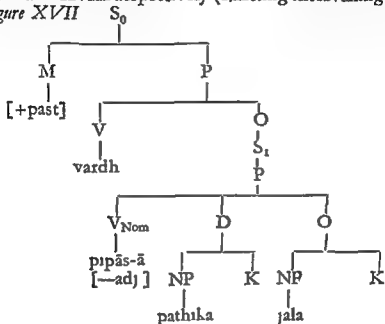
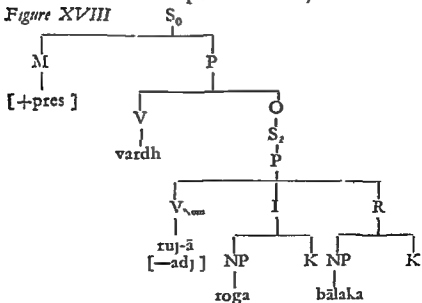


Figure XVIII



Now, the node-pruning rule deletes the nodes S_1 (in figures XVII, XVIII), the P-raising rule and the P-deletion rule apply, and the result is as in figures XIX and XX respectively.

Figure XIX

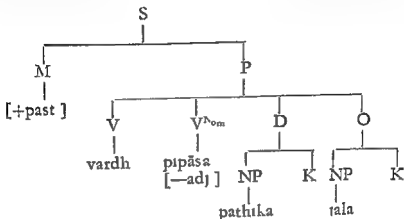
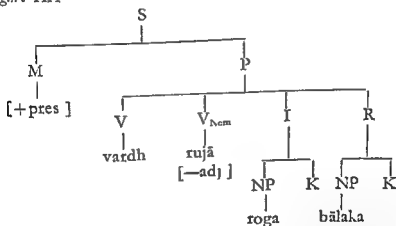


Figure XX



As mentioned above (figure XI, above), no case-category which has originated in the embedded S can be selected for subjectivalisation after P-raising. But, no subjectivalisation-rule has applied to the embedded S and no case category therein has been selected for agreement with the V_{Nom} . Under these circumstances, the V_{Nom} behaves like O and can be subject to subjectivalisation and the process of passivisation.

V_{Nom} is selected for agreement with the V, the affix-substitution rule replaces the features with affixes (morpho phonemic rules attach 'g' to D and O in figure XXI, and 'g/i' to I and 'g' to R in figure XXII) The result is as represented in figures XXI, XXII (omitting intervening details)

Figure XXI

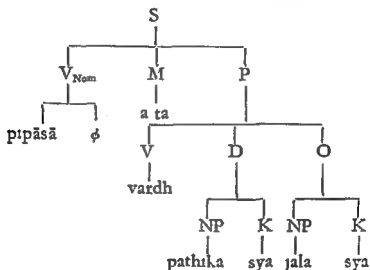
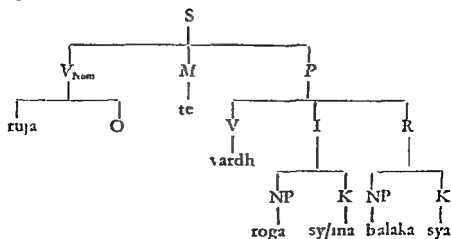


Figure XXII



The final forms are as represented in figures XXIII, XXIV, from which sentences 14 and 15 are derived respectively.

Figure XXIII'

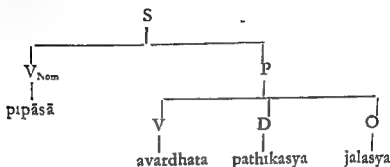
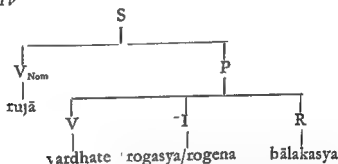


Figure XXIV



Alternatively, if at the stage of figures XIX, XX, the V_{Nom}'s ('pipāsā' and 'rujā') are not selected for subjectivalisation, the process of passivisation without subjectivalisation operates and sentences 14 and 15' are derived from figures XXV and XXVI respectively (from figures XIX, XX) (omitting intervening details)

Figure XXI'

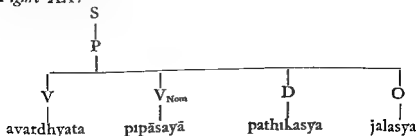
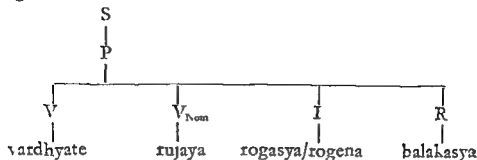


Figure XXVI



IV 3 2 In this section, constructions like 10, 11 above (IV 3) and 16, 19 below in which a Genitive (f n 1) is related to an NP, are discussed. Comparable constructions in other languages, for example in Hindi¹⁴, have been referred to as 'possessive'. I would refer to them as Genitives. In sentences 10 and 16, the relation between the Genitive and the related NP is 'inalienable' and in sentences 11, 17 it is 'alienable'. The inalienability and alienability of relation is discussed later (IV 3 2 1).

- 16 balayah - pita - yati
 G g A
 of girl father - goes
 (girl's father goes)

- 17 balayah - pustakam - asti
 G g Es
 of girl - book - is
 (the girl has a book/there is girl's book)¹⁵

Various scholars have referred to the structural parallelism between locative and possessive constructions¹⁶

14 Kachru Y, (1969) pp 37-45

15 This ambiguous interpretation of sentences like 11 17 is discussed in IV 3 2 4

16 Lyons J (1969) pp 391 334 344 345. Constructions like *the book is on the table* vs *the book on the table* : this parallelism appears to be dependent on the assumption that the underlined segments are optional or structurally dispensable constituents of the sentence. Cf id (1967) pp 300-06

But this statement does not take into consideration sentences like 10, 16 above. The main motivation for this parallelism appears to be the fact that 'x's' and 'on the table'¹⁶ in sentences such as 'this is x's book : the book is on the table' are not essential constituents. But, this is not true with all Genitive constructions. In sentences like 10, 16, 'vadanam' (face) being a body-part term and 'pitā' (father) being a relational term, imply a Genitive like 'bālāyah' which is not a non-essential constituent. This is true even in sentences like 'vadanam - sundaram - asti' (face-beautiful-is) and 'pitā - yāti' (father goes), as the interpretation is always in a context. Lyons does not discuss constructions like 10, 16 above.¹⁷

In the case of constructions like 11, 17 above Lyons is in favour of treating 'have' as a surface realisation of the underlying possessive, thus deriving a sentence like 'x has a book' ← 'the book is x's', on the basis of characteristics in languages like Slavonic and Celtic which have no verbal form comparable to 'have' in English. However, the occurrence of a verb like 'have' in a language like English, makes explicit the distinction between sentences 10, 16 and 11, 17 above.¹⁸ It will be proposed that sentences like 11, 17 have a sentential derivation i.e. have a derivation involving an embedded S(IV. 3 2 4), but that sentences like 10, 16 do not.

Consider sentences 18-20 besides 10, 16 above

18. tasyāh - vadanam - sundaram - asti
 G g O nom
 her - face - beautiful - is
 (her face is beautiful)

17 Lyons, J, (1969), pp 388 398

18. Fillmore C J, (1968a), p 66

19. bhavanasya - praveśadvāram - apāvṛtam - asti
 G g O nom
 of building - entrance-door - opened - is
 (the entrance-door of the building is open)
20. bhāratasya - usnakālah - duḥkhaḥ - asti
 G g O nom
 of India - hot weather, - unpleasant - is
 (India's hot weather is unpleasant)

The relationship between the Genitive and the associated NP (in sentences 16, 18, 19, 20) is 'inalienable'. The relation refers to kinship (in sentence 16), to part-whole (in sentences 18, 19 : in 18 it is body-part and in 19 it relates to inanimate entities), to weather or meteorological phenomenon (in sentence 20). Though, it is not certain that the relationship between 'usnakālah' and 'bhāratasya' in sentence 20, is inalienable semantically, the relationship in 18, 19 is semantically inalienable. In so far as the syntactic justification is concerned, sentences 18', 19', 20' with the occurrence of 'pārśve' are not acceptable (cf. IV. 3. 2. 1.).

- 18'. * tasyāḥ pārśve - vadanam - sundaram - asti
 her - face - beautiful - is
- 19'. * bhavanasya pārśve - praveśadvāram - apāvṛtam -
 of building - entrance door - opened -
 asti
 is
- 20'. * bhāratasya pārśve - usnakālah - duḥkhaḥ - asti
 of India - hot weather - unpleasant - is

It may be noted that even in a locative sense the occurrence of 'pārśve' in 18', 19' 20' is not acceptable.

Thus, the sentences 16, 18-20 are marked for 'inalienable possession' and sentence 17 for 'alienable possession',¹⁹ and henceforth will be referred to as such.

19. Fillmore, C. J., (1968a) p. 66. Cf. Chomsky, N., (1970a), pp. 200-07.

IV 3 2 1 Fillmore proposes two schemata for the derivation of constructions with inalienable and alienable possession. Thus a sentence expressing 'alienable possession' like 'my house' in English would be derived from 'I have a house', in which the Genitive and the possessed NP come from an embedded S, the schema for the NP dominating the Genitive being $NP \rightarrow N(S)$. A Sentence expressing inalienable possession like 'my father' would be derived from an NP dominating a D, the schema being $NP \rightarrow N(D)$.²⁰ In Sanskrit also, this distinction between sentential and non sentential derivation of a construction with a Genitive is crucial syntactically and semantically, and needs to be retained. However, in the absence of a verb like 'have' there must be some other device to bring out this distinction.²¹

IV 3 2 1 1 Consider first sentences with Genitives which express 'inalienable possession' for which there is a schema like $NP \rightarrow N(D)$. Thus a sentence like 21 is distinguished from sentence 22 with alienable possession wherein the occurrence of the PP 'pārśve, may be accepted as a dis-

20 Fillmore C J, (1968a) p 66 the schema as proposed by Fillmore, is under the sub title adnominal datives for him an adnominal dative is a possessive modifier (p 66) of a noun. In IV 3 2 1 1 5 a schema like $NP \rightarrow N(O)$ also is proposed as it is not the case that the relationship is always to an animate entity.

21 Fillmore C J (1968a) p 66 A distinct method is required for introducing the possessive element in the case of inalienable possession a method which reflects the fact that the relationship between the two nouns in 'inalienable possession' is not a sentential relationship. In Sanskrit the occurrence of pārśve brings out this distinction between alienable and inalienable relationship. In the case of a Genitive with the co occurrence of pārśve indicating the alienable relationship a sentential derivation is proposed (IV 3 2 4)

tinguisher of alienability. It may be noted that a sentence like 21 cannot have an expansion like 21'.

21 * mitrasya - bhaginī - yāti

G g A nom

of friend - sister - goes

(friend's sister goes)

22 mitrasya pārśve - yat - pustakam - asti - tat - navam

G g

of friend - which-book - is - that - new-

asti

is

(that book which is of friend, is new)

21 * mitrasya pārśve - ya - bhaginī - asti - sā - yāti

G g

of friend - who - sister - is - she - goes

In sentences 21, 22, 'pārśve' is not interpreted as a locational reference. It may be noted that a sentence like 23 containing 'pārśve' with a locational reference (i.e. near) cannot give a sentence like 24, i.e. no optional deletion of 'pārśve' (in its locational sense) is allowed.

23 (a) mitrasya - pārśve - yat - pustakam - asti - tat . .

G g

of friend - near - which - book - is - that.

(that book which is near the friend . .)

(b) mitrasya - pārśve - mātā - asti

G g

of friend - near - mother - is

(mother is near the friend)

24 * (a) mitrasya - yat pustakam - asti - tat

of friend - which - book - is - that

(b) mitrasya - mātā - asti

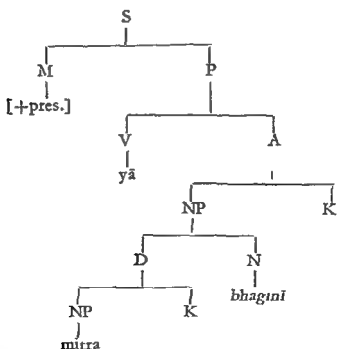
of friend - mother - is

If the locational reference is not implied, sentences like 24(a) can be derived from 23(a). However, it may be recalled that, without a locational reference of 'pārśve' sentence 23(b) is unacceptable and as such no question of deriving 24(b) would arise.

In other words, sentences 24(a), 24(b) with the optional deletion of 'pārśve' (in locational sense) cannot be derived from 23(a) and 23(b). Sentences 24(a) and 24(b) are, otherwise, acceptable.

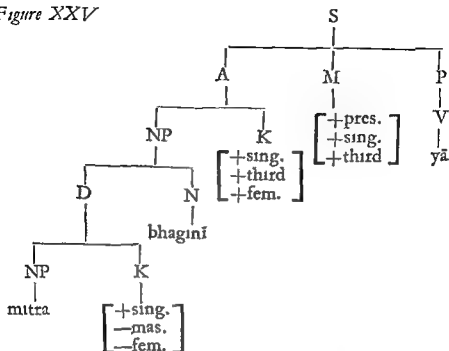
IV.3.2.1.1.1. Consider sentence 21 above which has the underlying structure as in figure XXIV.

Figure XXIV



D remains inside A and the subjectivisation rule selects A for agreement with the V. The result is as in figure XXV.

Figure XXV



The affix-substitution rule replaces features with affixes. (It may be noted that a morphophonemic rule obligatorily substitutes 'sya' (genitive) for features under K dominated by D) The result is as represented in figure XXVI and the final form as in figure XXVII.

Figure XXVI

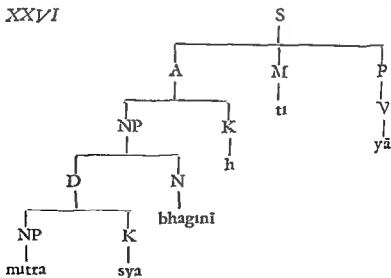
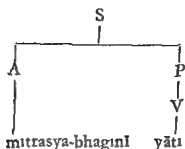


Figure XXVII



IV. 3. 2 1. 1. 2 Consider, next, sentences 25-32 which have an attribute element also. Only sentences 25-26' will be described completely. Sentences 27-32 have a derivation similar to that of 25-26'.

- 25 sevakasya - netram - kanam - asti
 D g Es nom T nom
 of servant - eye - blind - is
 (the servant is blind in one eye)

- 25'. sevakasya - netrena - kanena - bhūyate
 D g Es 1 T 1
 of servant - by eye - by blind - is become
 ((it) is become blind in one eye of the servant)

- 26 sevakah - netrena - kanah - asti
 D nom Es 1 T nom
 servant - by eye - blind - is
 (the servant is blind in one eye)

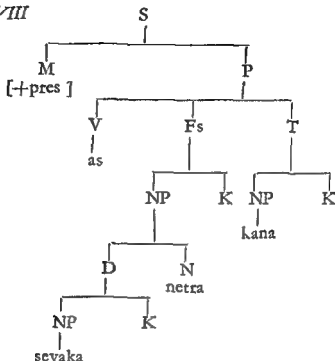
- 26' sevakena - netrena - kanena - bhūyate
 D 1 Es 1 T 1
 by servant - by eye - by blind - is become
 ((it) is become blind in one eye by the servant)

- 27 tasya - varnah - gaurah - asti
 G g Es nom T nom
 his - colour - fair - is
 (his colour is fair)
- 28 sa - varnena - gaurah - asti
 D nom Es 1 T nom
 he - with colour - fair - is
 (he is fair in colour)
- 29 tasyāh - prakṛtiḥ - madhurā - asti
 D g Es nom T nom
 her - nature - sweet - is
 (her nature is sweet)
- 30 sā - prakṛtyā - madhurā - asti
 D nom Es 1 T nom
 she - with nature - sweet - is
 (she is sweet by nature)
- 31 bālikāyah - ākṛtiḥ - mañjulā - asti
 D g Es nom T nom
 of girl - look - lovely - is
 (girl's looks are good)
- 32 bālikā - ākṛtyā - mañjula - asti
 D nom Es 1 T
 girl - by look - lovely - is
 (the girl is lovely by looks)

Sentences 25 26 have three elements (i) possessor - 'evaḥ asya/ sevakah' (ii) body part - 'net-am/netrena' and (iii) attribute - 'kanam/kanena', which will be referred to as 'P', 'B', 'At' respectively for discussion below

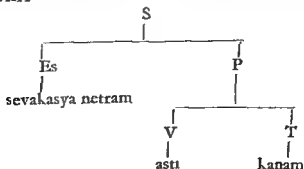
Sentences 25 26 have the underlying structure as in figure XXVIII

Figure XXVIII



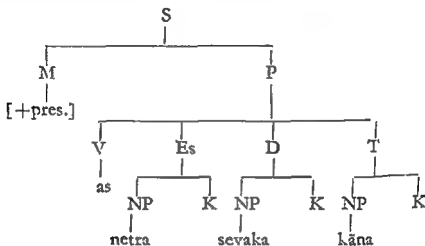
Now, D may or may not remain inside Es. D is not promoted i.e. remains inside Es, and the subjectivisation rule selects Es for agreement with the V. The affix substitution rule replaces features with affixes. It may be noted that T takes on the features of Es (these two processes are similar to those in figures XXV, XXVI above and hence are omitted). The final form is as represented in figure XXIX.

Figure XXIX



Thus, sentence 25 is derived from figure XXIX. If, at the stage of figure XXVIII, the subjectivatisation-rule does not operate, the process of passivisation without subjectivatisation applies and sentence 25' is derived.²² Alternatively, at the stage of figure XXVIII, D is promoted²³ and the result is as in figure XXX (from figure XXVIII).

Figure XXX

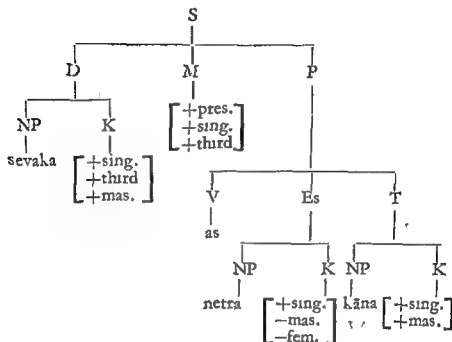


22. This process of passivisation without subjectivatisation operates in the case of sentence 26' as well, and may operate in the underlying structures of sentences 27-32 also. As it has been explained more than once before, it will not be referred to again unless necessary.

23. It may be recalled that in the case of sentence 21 (figure XXIV), no possibility of this optional promotion of D is indicated. This optionality of promotion is possible only when the Genitive and the related NP is in body-part (or part-whole) relation, along with the co-occurrence of T in its case frame. In such constructions, only Es can dominate the D in a simple sentence. The case-category L (in body-part or part-whole relation) also may dominate D (see IV. 3.2.1.1.4), but there is no T in the case-frame. In fact this case-category T also is constrained by its attributive feature.

D is selected for subjectivatisation and T takes on the features of D.²⁴ The result is as represented in figure XXXI.

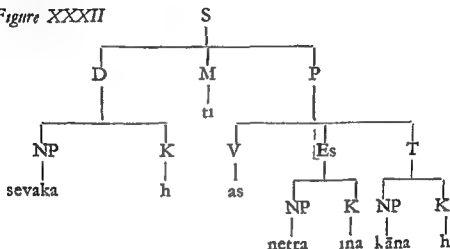
Figure XXXI-



24. There arise three points. In the first instance, figure XXX shows a case frame like [Es, D, T—] But, in the chapter on 'NP-asti-NP constructions', it has not been mentioned that the casecategory Es can occur with D. In the second place, what casecategory, if any, may be assigned to 'sevaka' (i.e. D) after its promotion (as in figure XXX) ? as it is evident that no case-frame containing D has been suggested in the chapter III. Then, would it be necessary to relabel D as Es, after its promotion ? The answer is in the negative as cases are specified in underlying structures. A way out of these problems suggests itself in the fact that in such sentences D is always dominated by Es, and as such it need not be indicated in the case frame which is specified as [Es, T —]. However, a rule may specify that in case D is promoted, the subjectivatisation rule selects D rather than E. (Es is usually selected in the case of an 'NP-asti-NP' construction).

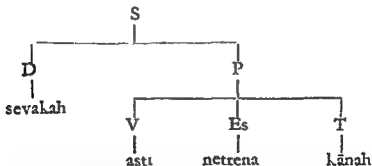
The affix-substitution rule applies and replaces features with affixes. It may be recalled that the features under K dominated by Es, are obligatorily replaced by 'i' - affix, in case Es is not subjectivalised. The result is as represented in figure XXXII.

Figure XXXII



The final form is as in figure XXXIII.

Figure XXXIII



Now, the T takes on the features of this D (which has been dominated by Es and now stands promoted), rather than that of Es (in an 'NP-asti-NP' construction T takes on the features of Es). With these processes, there appears to be no need to relabel D after its promotion, which would, otherwise, add to the complexity in the form of two occurrences of the same case category (if D is relabelled as Es) in a simple sentence

Thus, sentence 26 is derived from figure XXXIII. As mentioned earlier (f. n. 22) sentence 26' can be derived in case the process of passivisation without subjectivalisation operates at the stage of figure XXX.

It may be noted that all sentences (25-32) have the elements P(ossessor), B(ody-part)²⁵ and At(tribute). To account for such constructions (25, 27, 29, 31) Fillmore²⁶ refers to a schema like (i) $[P_s \longrightarrow B] - \text{asti-At}$. An alternative schema like (ii) $P_{\text{nom}} \text{ asti } [B, \text{At}]$ is proposed for constructions like 26, 28, 30, 32.

As shown above, the case-categories D, Es, T occurring in a case-frame, dominate NP's which indicate P(ossessor), B(odypart) and At (tribute) respectively. The schemata (i) and (ii) above, show the surface-realizations of sentences like 25, 27, 29, 31 and 26, 28, 30, 32 respectively.

IV. 3. 2. 1. 1. 3. Consider, next, sentences like 33-35, in which the At(tribute) is replaced by a nominal specified as T.

33. *bālakah - pustakāḥ - chātrah - asti*
 Es nom 1 T nom
 boy - with books - student - is
 (from his books, the boy appears to be a student)

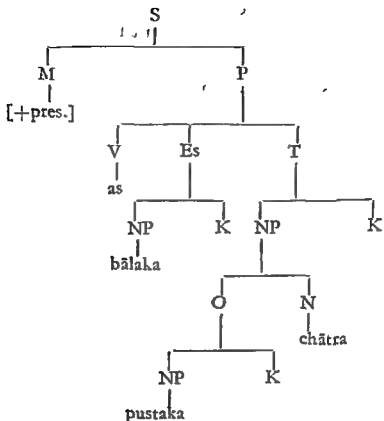
-
25. One may argue that there is an extension of the notion of 'body part' (in case of sentences 27-32). The term 'body-part' may be appropriately replaced by 'part-whole' because the possessed NP, even if not a body-part, is conceived as organically related with P(ossessor). The term 'body-part' is retained to have the minimum modification in the rule referred to by Fillmore.
26. Fillmore, G. J., (1968a), p. 64 : Fillmore is not explicit as to what is meant by a symbol like ' \rightarrow '. It may be interpreted as P (with genitive inflexion) related to B. The schema as mentioned by him is $[P_{\text{gen}} \rightarrow B] \text{ be A}$.

34. sa - keśaiḥ - tāpasah - asti
 Es nom 1 T nom
 he - with hair - mendicant - is
 (from his hair, he is a mendicant)
35. yuvatī - sindūreṇa - sabhartrkā - asti
 Es nom 1 T nom
 young lady - with vermilion - with husband - is
 (the young lady appears married (with husband)
 on account of vermilion)

The underlined NP's - 'pustakaiḥ', 'keśaiḥ', 'sindūreṇa' - in sentences 33 35, which have been referred to as B(ody part), may perhaps justifiably, be called 'part-whole'. Whether the appropriate term is 'body part' or 'part-whole', the relation between the P(ossessor) specified as Es(33-35 above) and the possessed NP's (underlined and unspecified as to their case-category) via T(in above sentences (33 35)), is inalienably conceived. In sentences 33 35 the P(ossessor) is identified with the nominal specified as T. The NP's - 'pustakaiḥ', 'keśaiḥ' 'sindūreṇa' - are considered inalienably related to T('chātrah', 'tāpasah', 'sabhartrkā). It may be noted that through this relation between the NP's (body-part/part-whole) and NP's specified as T, the P(ossessor) (specified as Es) becomes inalienably related to the NP's (body-part/part-whole). This is why the relation between 'bālakah - pustakaiḥ' (boy with books) in sentence 33, unlike that between 'bālakasya - pustakam' (of boy-book) in sentence 1 (IV. 1), is not an alienable one. Similarly, the relation between 'yuvatī' and 'sindūreṇa' in sentence 35, is inalienable. This position is further supported by the fact that sentences 33, 35 are unacceptable

33. * bālakah - mohanasya - pustakaiḥ - chātrah - asti
 boy - of m. - with books - student - is
 (the boy is a student on account of m.'s books)

Figure XXXIV.



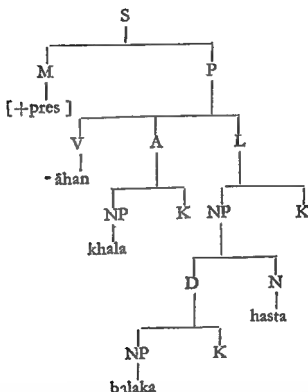
The configuration in figure XXXIV shows that in sentences 33-35, T is a complex structure which can be accounted for by a schema like $NP \longrightarrow N(O)$

IV. 3. 2. 1. 1. 4. The sentences discussed above (21, 25-35) show kinship and body-part (i. e. part-whole) relations. Consider, next, a sentence like 36 which also expresses a body-part relation.

36. khalah - bālakasya - haste - āhanti
 A nom D g L l
 wicked - of boy - on hand - strikes
 (a wicked man strikes the boy on his hand)

The above sentence has a case frame like [A, L—] wherein L is a body-part and dominates D. The underlying structure of sentence 36 is as represented in figure XXXV.

Figure XXXV



At this stage (of figure XXXV) there are two options (i) D may remain inside L or (ii) D is promoted. Subsequently, a subjectivisation rule applies optionally. Consequently, there are five possibilities as follow

- (a) If D remains inside L,
- (i) A may be selected for subjectivisation as in sentence 26 above

- (ii) or L may be selected for subjectivalisation as in sentence 36(a) below.
- (iii) the subjectivalisation-rule may not operate as in sentence 36(b) below.

(b) If D is promoted,

- (iv) A is selected for subjectivalisation as in sentence 36(c) below.
- (v) D is selected for subjectivalisation as in sentence 36(d) below.

36(a) bālakasya - hastah - khalena - āhanyate
 D g L nom A i
 of boy - hand - by wicked - is struck
 (the boy's hand is struck by a wicked man)

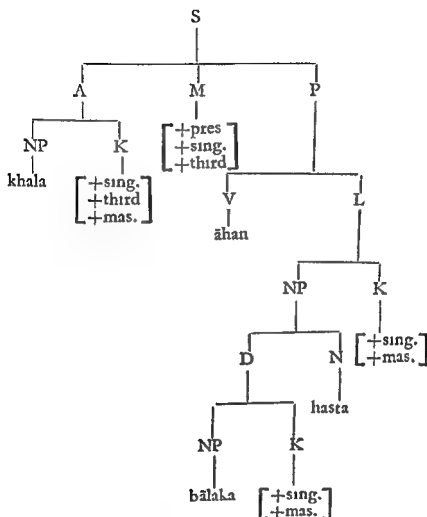
36(b) bālakasya - haste - khalena - āhanyate
 D g L i A i
 of boy - on hand - by wicked - is struck
 ((it) is struck on the boy's hand by a wicked man)

36(c) khalah - bālakam - haste - āhanti
 A nom D acc L i
 wicked - boy - on hand - strikes
 (a wicked man strikes the boy on his hand)

36(d) bālah - haste - khalena - āhanyate
 D nom L i A i
 boy - on hand - by wicked - is struck
 (the boy is struck on his hand by a wicked man)

Now, the option (a) above is selected (i.e. the D promotion rule does not apply) A is selected for subjectivalisation and the result is as in figure XXXVI

Figure XXXVI



The affix-substitution rule replaces features with affixes. It may be recalled that the affix genitive ('sya') is obligatorily added to D in case it is not promoted (cf. figures XXVI, XXIX). The result is as represented in figure XXXVII. The final form is as in figure XXXVIII, from which we obtain sentence 36 above.

Figure XXXVII

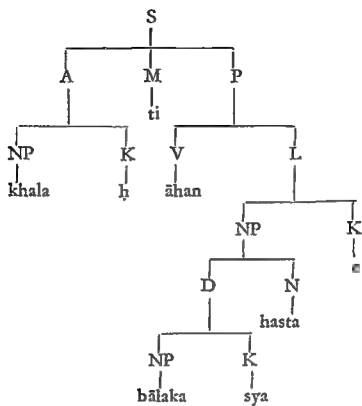
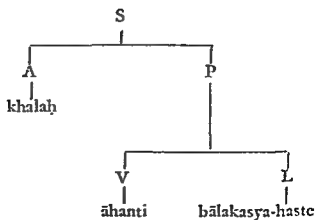
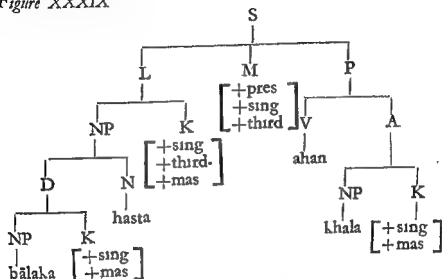


Figure XXXVIII



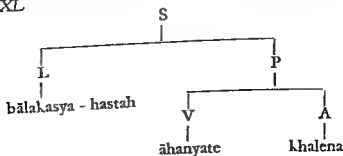
(ii) Alternatively, at the stage of figure XXXV, L is selected for subjectivalisation and the result is as represented in figure XXXIX (from figure XXXV)

Figure XXXIX



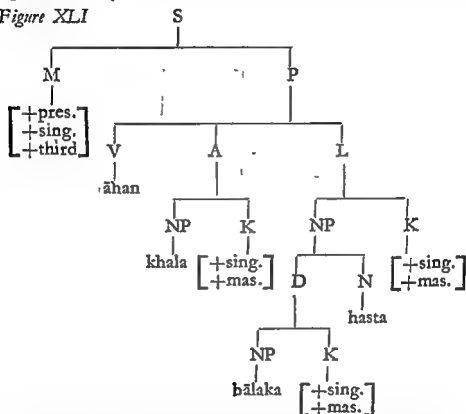
The affix-substitution rule replaces the features with affixes. It may be noted that selection of L for subjectivalisation, usually does not trigger the attachment of 'te' under M and the addition of -ya- to V (cf II 4 4 3). But here, with body part L these necessarily take place. The final form (omitting the intervening details) is as represented in figure XL from which sentence 36(2) above is obtained.

Figure XL



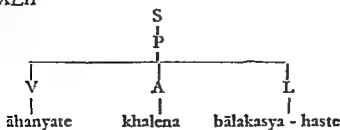
(iii) Alternatively, if the subjectivalisation-rule does not operate and no case-category is selected for agreement with the V, the process of passivisation without subjectivalisation applies and the result is as represented in figure XLI (from figure XXXV).

Figure XLI



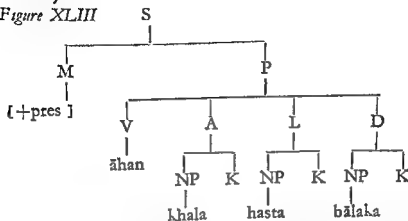
The affix-substitution rule replaces the features with affixes and the final form (omitting intervening details) is as represented in figure XLII from which sentence 36(b) is derived.

Figure XLII



Now, the option (b) is selected i.e. D - promotion applies. The result is as represented in figure XLIII (from figure XXXV)

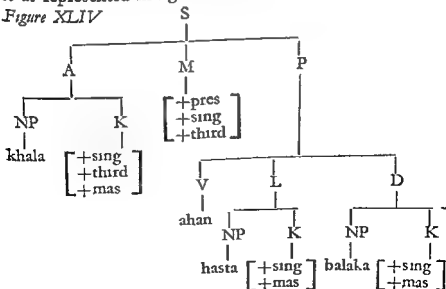
Figure XLIII



Now, at the stage of figure XLIII there are two possibilities : either A is subjectivalised or the process of passivisation operates and selects D for agreement with V (it may be noted that the D after its promotion behaves as R)

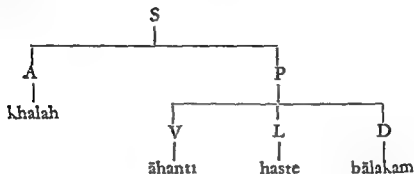
(iv) A is selected for agreement with the V and the result is as represented in figure XLIV

Figure XLIV



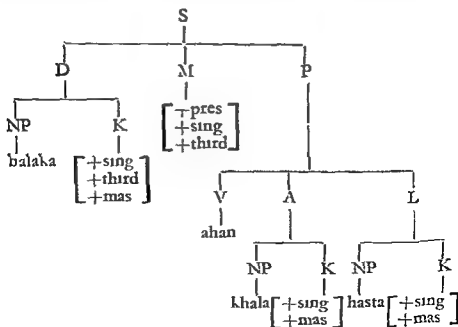
The affix-substitution rule applies and replaces features with affixes. The final form (omitting intervening details) is as represented in figure XLV from which sentence 36(c) is derived

Figure XLV



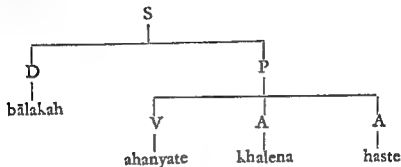
(v) Alternatively, a subjectivalisation rule does not apply and the process of passivisation operates and selects D for agreement with the V. The result is as in figure XLVI

Figure XLVI



The affix-substitution rule replaces the features with affixes. The final form (omitting intervening details) is as in figure XLVII from which sentence 36(d) is derived

Figure XLVII



All the sentences discussed above (21, 25 32, 26) are such in which the Genitive and the related NP are in kinship or bodypart (part whole) relations. The schema proposed for such constructions is $NP \rightarrow N(D)$. Fillmore would like to have this schema for a sentence like 37 as well

- 37 [nidesakasya — sacivah] — āyati
 A D g nom
 of director — secretary — comes

Fillmore is not explicit whether the relation between the D 'nidesakasya' and 'sacivah' is alienable or inalienable, though by implication (as he refers to the schema mentioned above) he rules out a sentential derivation of such constructions. It appears that the occurrence of NP's like 'sacivah' (secretary), 'lipikah' (copyist), 'taNkakah' (typist) which indicate profession, allow the occurrence of 'pārsve' in a non locational sense, as in sentence 38

- 38 tasya pārsve - lipikah/taNkakah/sacivah - asti
 g
 his - copyist/typist / secretary - is
 (he has a copyist/typist/secretary)

It is considered, therefore, appropriate to treat sentences like 37 and 38 with a sentential derivation (which is discussed in IV. 3. 2. 4.). Apparent exception to this position may be sentences like 39 wherein the Genitive and the related NP involve a designation like that in sentence 39.

39. kulapateḥ - sacivah
 of vice-chancellor - secretary
 (vice-chancellor's secretary / secretary to the vice-chancellor).

It appears²⁷ that constructions like 39 can better be treated according to the schema NP → N(S).

IV. 3. 2. 1. 1. 5. Consider, next, sentences like 40-43, wherein the items related to Genitives refer to inanimate P(ossessor) in part-whole relation.

40. āsandyāḥ — pādah — navah — asti
 G g Es nom T nom
 of chair — leg — new — is
 (the leg of the chair is new)
41. phalakasya — prṣṭham — nirmalam — asti
 G g Es nom T nom
 of board — surface — clean — is
 (the surface of the board is clean)
42. pustakasya — prsthāni — navāni — santi
 G g Es nom T nom
 of book — pages — new — are
 (the pages of the book are new)
43. grhasya — dvāram — laghu — asti
 G g Es nom T nom
 of house — door — small — is
 (the entrance-door of the house is small)

27. It has been argued that the distinction between 'alienable' and 'inalienable' is not relevant here as one can have a sentence like 'prakosthāt-sacivah - āgataḥ : 'a secretary emerged from the office' (Stockwell, R. P., p 736).

(It may be noted that sentences like 40-43 call for a modification in the schema NP \longrightarrow N(D) (cf. IV. 3. 2. 1, f. n. 20)

None of the above sentences (40-43) can, according to the earlier criterion, have a sentential derivation for the Genitives. It may be recalled that all such Genitives which have alienable relationship with related items (and have a sentential derivation) allow the occurrence of 'pārśve'. But sentences 40'-43' are unacceptable and as such sentences 40-43' cannot have a sentential derivation

40'.	*	āsandyāh pārśve	- pādah	- navah	- asti
		of chair	- leg	- new	- is
41'.	*	phalakasya pārśve	- prsthām	- nirmalam	- asti
		of board	- surface	- clean	- is
42.	*	pustakasya pārśve	- prsthāni	- navāni	- santi
		of book	- pages	- new	- are
43'	*	grhasya pārśve	- dvāram	- laghu	- asti
		of house	- door	- small	- is

However, a sentence like 44 wherein the Genitive and the associated item are not inalienably related, is acceptable even without a locational reference (sentences like 44 are discussed in IV. 3. 2. 4).

44.	guroh	— pārśve ²⁸	— lekhanī	— asti
	G g		Es nom	
	of teacher	— pen	— is	
	(the teacher has a pen)			

IV 3 2 1 1 6. Consider, next, sentences like 45 which contain a directional indicator and exhibit the inalienable relation between the Genitive and the directional indicator.

28 'pārśve' may mean 'near' also. Here it is not semantically significant: it has no locational reference. In 44, it gives the sense which would be captured by 'have' in English and 'ke pā a' in Hindi.

45. guruh — mama — vāmatah — asti
 Es nom G g L
 teacher — my — to left — is
 (the teacher is to my left)

The relation between 'mama' and 'vāmatah' may be treated as body-part relation. Though NP's indicating direction may occur without any personal references as in 45', a personal reference is always implied.

- 45' guruh — vāmatah — asti
 teacher — to left — is
 (the teacher is on (my) left)

Perhaps one may argue that in 45', the reference may be other than the speaker (i.e. 'mama') and the directional NP 'vāmatah' may involve reference to a building or anything else. However, this interpretation is possible only in a context. In fact, the absence of an overt form of personal reference (in 45) is due to the fact that they usually refer to 'position or direction with respect to the speaker or addressee in an utterance, and there are simply many situations in which an adnominal D need not be expressed if it identifies speaker or hearer'²⁹

One may suggest that Ross's postulation of a performative analysis³⁰ in the form of a superordinate structure containing the NP 'aham' (I) may account for structures like 45. But, the performative analysis of declarative sentences does not appear to be strongly motivated in the case of Sanskrit.

In a performative analysis, the superordinate structure 'must have first person subject' and 'usually

29 Fillmore, C. J., (1968), p. 80

30 Ross, J. R., (1970), pp. 222-272

have second person direct or indirect objects in deep structure.³¹ Ross considers the occurrence of the NP 'aham' 'I' in the superordinate performative structure the most significant and gives 'seven arguments suggesting the existence of a higher subject I'³²

Ross's other arguments³³ relate to the occurrence of the reflexive 'myself' in different structures without the co-occurrence of the pronominal, which necessitates that there is a superordinate structure with 'I', which would be deleted through a performative deletion-rule, after it has led to the reflexivisation of the co-referential NP. In Sanskrit, such exigency does not arise, as would be shown by sentences 46 and 46'. In 46 the reflexive does not occur.

- 46 patram - rāmena - mayā - (svayam) - ca - alikhyata
 O nom A 1 A 1
 letter — by r — by me - (self) — and - was written
 (the letter was written by r and by myself)
- 46'. mama/mayā — samāh — chātrāh
 my/ with me — like (equals) — students
 (students like myself)

Thus, it seems that as Sanskrit has no exact parallel to the English reflexive, and no other motivation is apparent, Ross's arguments do not carry over to Sanskrit.

Now consider a sentence like 47 for which Fillmore³⁴ would propose a schema like NP → N (L)

47. parvatasya — mekhalā
 O g nom
 of mountain — slope
 (slope of the mountain)

31 Ross, J R, (1970), p 222

32 Ross, J R, (1970), pp 226, 236

33 Ross, J R, (1970), pp 225 236

34 Fillmore, C J, (1968a), p 80

But according to him, 'mekhalā (slope) would be a 'locational noun' and 'parvatasya' (of mountain) also would be an 'adnominal, L. The NP 'mekhalā' indicates a part-whole relation and may be assigned a case-category which is not necessarily L. But, there appears to be no reason to assign the case-category L to 'parvatasya'. An inanimate Genitive need not be L always (cf. sentences 40-43), and it is more appropriate to specify it as O like the Genitives in 40-43 above. Thus the schema proposed by Fillmore may be modified as NP→N(O) In construction 47 above, the relation between the Genitive and the associated NP is a part-whole and thus inalienable. A construction like 47' is unacceptable. It may be noted that even in the sense of locational reference the occurrence of 'pārsve' would not make 47' acceptable.

47'. * paravatasya pārsve — mekhalā
of mountain — slope

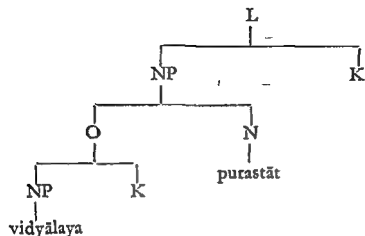
IV. 3 2 1. 1. 7. Now, take the problem of some nouns like 'pārsve' (proximity), 'purastāt' (in front), 'parastāt' (beyond) which indicate a location or direction 'with reference to the associated object but not considered as a part of it.'³⁵ Such nouns³⁶ are semantically significant³⁷. Such nouns involve some reference-point and the relationship between them and the objects with reference to which they are associated, is akin to the inalienable relationship between the possessor and the possessed item. Such nouns convey spatial/temporal orientation and can be conceived only in relation to the associated object.

35 Fillmore, C J, (1968a), p 81.

36 They are referred to as P(ost) P(osition), though no restriction to sequential ordering is assumed

37 Robinson, J J, (1969), pp 58 59 Cf Kachru, Y, (1969), p 39

Figure XLVIII



Constructions 49-50 also have an underlying structure similar to that in figure XLVIII. A morphophonemic rule, later in the derivation, attaches the genitive-affix to O dominated by L.

IV. 3. 2. 2. In the foregoing sections (IV. 3. 2. 1. 1.—IV. 3. 2. 1. 1. 7), two schemata are proposed : (i) NP → N(D) and (ii) NP → N(O), to account for the inalienably related Genitives and associated/possessed items. The schema (i) relates to kinship and body-part relations (sentences 10, 21, 25-32, 36) and the schema (ii) relates to part-whole relations (inanimate entities (sentences 40-43, 48-50)). In sentences 48-50 the case-category L and in sentences 40-43, 47 the case-category O dominate the NP which is expanded according to the schema NP → N(O). In sentences 44, 45 the case-category L dominates the NP which is expanded following the schema NP → N(D). For all the constructions containing Genitives which express inalienable relation, a schema $NP \rightarrow N\left(\left\{\begin{smallmatrix} D \\ O \end{smallmatrix}\right\}\right)$ may be proposed.

IV. 3. 2. 3. Before taking up for analysis constructions which are characterised by an alienable relationship between

the possessor and the possessed/associated item, one point needs to be considered in the context of the derivation of the embedded D/O. A schema like $NP \longrightarrow N \left(\begin{Bmatrix} D \\ O \end{Bmatrix} \right)$

somewhat modifies the notion of case, which has been developed in relation to verbs. Postulation of a schema like the above implies an extension of the notion of case in relation to nouns as well. Now, just as selectional features of verbs, determine a case-frame,³⁸ nouns like *svasā*, *hastāḥ*, *dāram pārśvam*, (*sister*, *hand*, *entrance*, *side*) may be considered to have aspects of meaning appropriate to selecting a case. But, it may be difficult to accept that nouns like 'aśvāḥ/āsandī' (house/chair) may have aspects of meaning which induce the selection of a particular case.³⁹ This difficulty may be overcome in the case of a sentential derivation of Genitives which indicate an alienable relation between the possessor and the possessed/associated item (IV. 3 2 4).

IV. 3. 2. 4 For constructions which indicate alienable possession, Fillmore, proposes a sentential derivation i. e. $NP \longrightarrow N (S)$ It has been mentioned earlier that such constructions are distinguished from those showing inalienable possession, by the occurrence of 'parśve' in the former set of sentences (1, 11, 17, 44)

Consider sentences like 51 which is derived from sentence 51'.

51.	chātrasya	—	pustakam	—	asti
	G		g		
	of student	—	book	—	is

38 Stockwell, R P, et al (1968), p 721 'there appears to be a very close relationship between aspects of the central essential meaning of a verb and the case frame it selects'

39 Stockwell, R P, et al (1968), pp 720 21

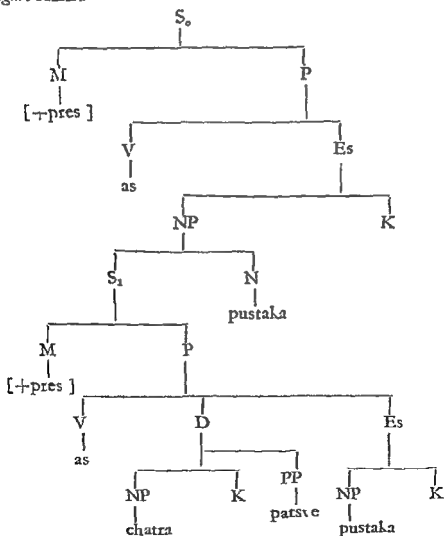
(the student has a book / there is the book of the student)

51'. chātrasya pārśve — pustakam — asti

G g
of student — book — is

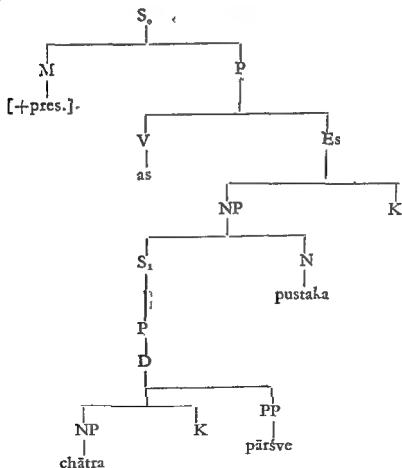
In accordance with the schema, sentences 51, 51' have the underlying structure as in figure XLIX

Figure XLIX



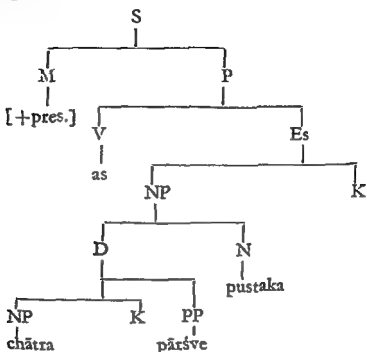
Fillmore suggests that the NP under Es in S_1 is a co-referential copy⁴⁰ of the N 'pustaka' under Es in S_0 . This NP can be replaced by a relative-marker to derive a relative-clause from S_1 . Es in S_1 is selected for subjectivisation and then there is deletion of the items under Es and V under identity. Consequently, the node M is also deleted. The result (omitting intervening details) is as represented in figure L.

Figure L



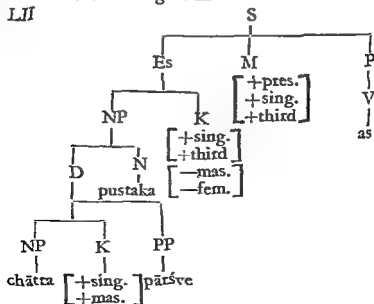
The node-pruning rule deletes the nodes *S*₁ and *P*. The result is as represented in figure LI.

Figure LI



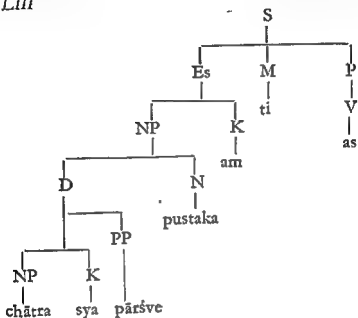
The subjectivalisation-rule selects *Es* for agreement with the *V* and the result is as in figure LIJ.

Figure LIJ



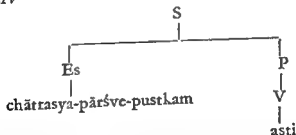
The affix-substitution rule replaces the features with affixes, a morphophonemic rule obligatorily attaches the genitive ('sya') to K under D due to the co-occurrence of 'pārsve'. The result is as represented in figure LIII.

Figure LIII



The final form is as in figure LIV.

Figure LIV



A 'pārsve' - deletion rule optionally deletes 'pārsve'. Thus sentences 51, 51' are derived from figure LIV. It may be added that a sentence like 51 above is ambiguous. In addition to the meaning 'the student has a book', it may be interpreted in the sense of 'there is the book of the student'.

But, in this latter sense the Es 'pustaka' is interpreted as [+definite].

Consider, lastly, a sentence like 52 which is four-way ambiguous.

52 rāmasya — citram — asti

G g Es nom

of r — picture — is

(there is the picture of r / r has a picture)

Sentence 52 may be interpreted like sentence 51 above and its derivation (similar to that of sentence 51 (figures L-LIV)) would be from a structure underlying sentence 52'.

52'. rāmasya parśve — citram — asti

G g Es nom

of r — picture — is

Alternatively, sentence 52 may be derived from structures underlying sentences 53, 54 ⁴¹

53 citram [ramah - citram - aracayat] - asti

Es A F

picture [r - picture - composed] - is

54 citram [Δ - ramasya - citram - aracayat] - asti

Es A D F

picture [(someone) - of r - picture - composed] is

41 Cf Chomsky, N, (1970a), pp 200-07. Chomsky would consider a construction like 'J's picture' ← ((i) the picture that J has, (ii) the picture of J), to be related to the interpretation (iii) the picture that J painted, 'with a generalisation of the notion 'inalienable possession' to a kind of 'intrinsic connection' (pp 205-206). Cf Kachru, Y, (1969), p 44, (1966), pp 107-108. Kachru would like to handle the third interpretation separately from the other two.

The derivation of sentences 53, 54 which have the underlying structures as represented in figures LV and LVI respectively, involves the process of nominalisation which has been discussed earlier (IV. 3. 1. 1.), and accordingly it will not be discussed further here.

Figure LV

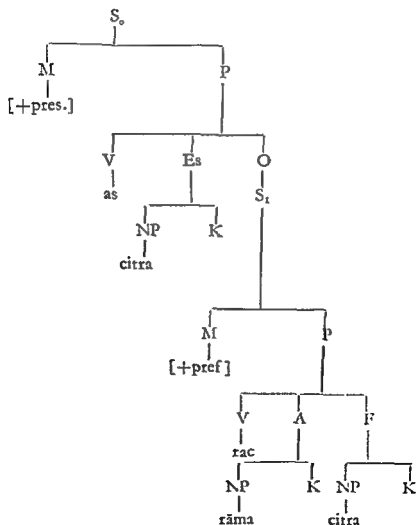
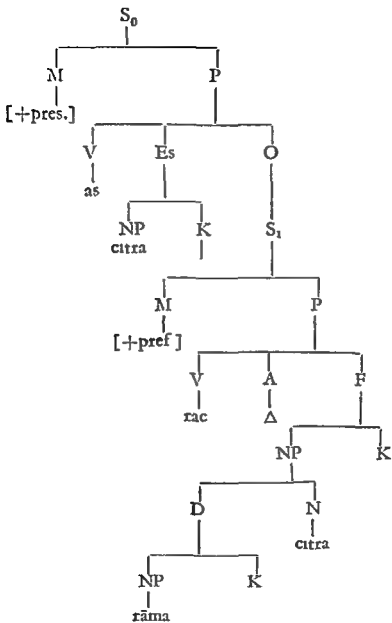


Figure LVI



V

LEXICON AND RULES

V. 1. In this chapter it is proposed to deal with the nature of the lexicon in FCG (section V. 1. 1), and specify a set of lexical entries for verbs (V. 1. 2), and a set of rules related to both the base and transformational components (V. 1. 3).

V. 1. 1. As mentioned earlier (I 2. 1. 4 f n. 78), FCG is explicated within the conceptual framework of TG grammar. However, the assumptions (I 2 1 3 -I.2 1. 3. 4.) of FCG lead to some significant modification in the lexicon.

V. 1. 1. 1. The base-component of a TG model grammar is considered to consist of a categorial component with unordered context-free rewriting rules called P(hrase) S(tructure) rules, and a lexicon containing a set of unordered lexical entries. Grammatical properties which are not relevant for categorial component (i. e. P. S) rules and those which are highly idiosyncratic could be assigned to the lexicon.

As Chomsky favours selection of V's in terms of the prior selection of nouns and considers subject-object as relational terms in the base-component, the lexicon assumes a complex form. Two sets of rules are proposed: (i) strict sub-categorisation rules analyse $\# CS(V)$ in terms of contextual (categorial) features and (ii) selectional rules (or selectional restrictions/restrictions of co-occurrence) analyse a CS in terms of syntactic features of the frame in which it (CS) occurs¹

FCG favours the prior selection of V's followed by the selection of other items in terms of V's (I 2. 1. 3 5). There is more than one reason to commend this position : (i) verbs 'in a very real sense are selectionally dominant',² (ii) prior and random selection of nouns may lead to a large number of strings which are to be discarded later on, (iii) prior selection of verbs has 'side-effects'.³

This position of FCG, along with the consideration that subjects and objects do not play a role in deep structure, leads to a change in the specification of the lexicon. In the lexicon, selectional restrictions, unlike strict sub-categorisation rules, are not concerned with the domain of one constituent. Selectional restrictions range over a subject noun and a verb as well as an object noun and a verb.⁴ Accepting that subject and object are surface-phenomena⁵, i. e. they do not originate in the base-component, there appears to be no need to retain this distinction between sub-categorisation rules and selectional restrictions.

V. 1. 1. 2 FCG suggests that case-relationships may be specified in the lexicon in terms of frame-features. These frame-features are spelled out in a case-frame which contains the cases with which a verb co-occurs to form a P(ropo-

2 Stockwell, R. P., et al (1968), p 935

3 Stockwell, R. P., et al (1968), p 934 : 'side-effects are effects on the other nodes in a tree after an item has been inserted' If verbs are selected first, the case-frames for the verbs indicate the possible case-category nodes in the tree.

4 Robinson, J. J., (1969), p 71 : 'the examples of selectional restrictions exhibit only those imposed by the inherent features of nouns on verbs with which they occur in subject or object relation'

5 See I 2 1 4 (f n 54)

sition) Thus a verb like 'hanti' (kill) has a case-frame like I.

I. hanti · [+ V] · [A, (I), R —]
 indicating, thereby, that the verb co-occurs with Agentive, Receptive and Instrumental which may or may not be, present in a construction like 1

- 1 dustah — (churikayā) — paśum — hanti
 A I
 wicked — with knife — animal — kills
 (the wicked man kills the animal with a knife)

In the above sentence 1, I is an optional case-category.

V. 1. 1. 3 Each lexical entry in a case-frame has associated with it a CS which indicates category -features, contextual features and inherent features.

A lexical entry like 'hanti' (kill) has a category-feature like [+V]. Each CS indicates only one category feature which is specified positively.

The case-frame like I given above, shows contextual features: e. the array of cases with which a lexical entry like 'hanti' can co-occur FCG proposes that the optional occurrence of an item in the case-frame may be indicated by parentheses, as in the case-frame I given above

Again, FCG suggests linked-parentheses to indicate that one of the linked items is obligatory. Thus, for sentences like 2 and 3, the case-frame would be shown like II.

- II. pacati - : [+V]
 (cooks) [(A, F) (L) —]
 2. sūdah — sthālyām — bhaktam — pacati
 A L F
 cook — in pot — rice — cooks
 (the cook cooks rice in a pot)

3. sthālī — pacatī

L

por — cooks

FCG proposes to show inherent features of lexical entries by a schema like

$$N \longrightarrow [+ \text{animate}]^{A,D} / [X \longrightarrow Y]$$

It may be noted that the nouns like 'sūdah' (cook), 'dustah' (wicked) are not inherently A (or any other case-category for that matter). The only inherent feature that is relevant to them is [+ animate]. The schema is syntactic and says that a construction would be unacceptable if the feature [—animate] is specified for an item which is positively specified as A/D

V. 1. 2 In this section, a list of verbs with their case-frames, is given. The verbs are specified in their [+ singular], [+ third], [+ person] forms. Polysemous forms are treated with only one reading.

1. *arbatī* : [+ V]
(deserves) [D, O, (SO), S —]

2. *astī* : [+ V]
(is) Es { ^(T)(L) $\left(\left\{ \text{GO}, \text{(SO)}_{\text{Ext}, (\text{GO}), (\text{SO})} \right\} \right) \}$ }

3. *icchatī* : [+ V]
(desires) [D, S —]

4. *kathayati* : [+ V]
(says) [A, (R), O —]

5. *karoti* : [+ V]
(does) [A, O, —]

6. *krīdatī* : [+ V]
(plays) [A, (O)(T) —]

7. krudhyatı : [+ V]
(gets angry) [D, R —]
8. krısyatı : [+ V]
(becomes feeble/slim) [D, (I) —]
9. ksıpatı : [+ V]
(throws) [A, { O }, GO, (Pa), (I), (SO —)
R]
10. khatanı : [+ V]
(digs) [A, O, (I), (L) —]
11. khādatı : [+ V]
(eats) [A, (O), (I), (L) —]
12. garjatı : [+ V]
(roars) : [A, (I), (L) —]
13. gāhate : [+ V]
(dives) [A, L —]
14. gūhati : [+ V]
(conceals) [A, O, (I), (L), (SO) —]
15. gāyatı : [+ V]
(sings) [A, O —]
16. grasate : [+ V]
(swallows) [A, O, (L) —]
17. grhnātı : [+ V]
(takes) [A, O, SO, (I), (L) —]
18. jighratı : [+ V]
(smells) [A, O, (I) —]
19. calatı : [+ V]
(moves) [{ A }, I, (L) —
O]
20. caratı : [+ V]
(grazes) [A, O, (L) —]

21.	cinoti (gathers)	: [+ V]	[A, O, (SO), (I), (L) —]
22.	corayati (steals)	: [+ V]	[A, O, (L), —]
23.	cumbati (kisses)	: [+ V]	[A, L —]
24.	cūrnayati (crushes)	: [+ V]	[A, O, (I), (L) —]
25.	ceṣṭate (tries)	: [+ V]	[A, S —] ⁶
26.	chinattī (cuts)	: [+ V]	[(I), A, O, (L) —]
27.	jayati (wins)	: [+ V]	[A, (SO), (O) —]
28.	jīvati (is alive)	: [+ V]	[D, (Ext), (L) —]
29.	jānāti (knows)	: [+ V]	[D, O —]
30.	jvalati (burns)	: [+ V]	[O, I —]
31.	tanoti (stretches)	: [+ V]	[A, O, L, (I), (Ext), (SO), (GO) —]
32.	tarjati (threatens)	: [+ V]	[A, R —]

6. No theoretical position is implied by this abbreviatory device. As mentioned earlier (I. 2. 1.3. 5.), sentences are embedded under a case (cf. P. S. rules VI. 1. 3. 1.). The occurrence of S in the case-frames of the underlined verbs, indicates that these verbs do not have simple underlying structures.

33. *tādayati* : [+ V]
(beats) [A, R, (I), (L) —]
34. *trpyati* : [+ V]
(becomes satisfied) [D, I —]
35. *tarati* : [+ V]
(swims/crosses) [A, L —]
36. *tvarate* : [+ V]
(hurries) [D, S —]
37. *damśati* : [+ V]
(bites) [A, R, (I) —]
38. *dahati* : [+ V]
(burns) [{ A, O, (I) }
{ I, (O) } —]
39. *dadāti* : [+ V]
(gives) [A, O, GO, (I) —]
40. *dīvyati* : [+ V]
(gambles) [A, I, (O) —]
41. *diśati* : [+ V]
(orders) [A, R —]
42. *dogdhi* : [+ V]
(milks) [A, (O)(R), (L) —]
43. *paśyati* : [+ V]
(sees) [D, { O }
{ R }, (I) —]
44. *dhāvati* : [+ V]
(runs) [A, (Pa), (L) —]
45. *dhunoti* : [+ V]
(shakes) [(A)(I), O —]
46. *dharati* : [+ V]
(holds) [A, O, (I), (L) —]

47. namati : [+ V] :
(salutes) : [A, R, (I) —]
48. naśyati : [+ V] :
(perishes) : [{ D }_O, I —]
49. nindati : [+ V] :
(speaks ill of) : [A, R —]
50. nrtyati : [+ V] :
(dances) : [A, (L), —]
51. pacati : [+ V] :
(cooks) : [{ A, (O)(F), (L), (I) }_O
L —]
52. paṭhati : [+ V] :
(reads) : [A, (O), (L) —]
53. patati : [+ V] :
(falls) : [{ A }_O (SO), (GO), (I) —]
54. pibati : [+ V] :
(drinks) : [A, O, I —]
55. pīdayati : [+ V] :
(hurts) : [(A)(I), R —]
56. puspyati : [+ V] :
(blooms) : [O —]
57. pūjayati : [+ V] :
(worships) : [A, (O)(I) —]
58. pūrayati : [+ V] :
(fills) : [(A), O, L —]
59. prechati : [+ V] :
(asks) : [A, R, O —]
60. plavate : [+ V] :
(floats) : [{ A, L, (I) }_{O, L} —]

61. badhnāti : [+ V]
(binds) [A, { $\begin{smallmatrix} R \\ O \end{smallmatrix}$ }, (L), (I) —]
62. bhanakti : [+ V]
(breaks) [{ $\begin{smallmatrix} A \\ O \end{smallmatrix}$, O, (I) } —]
63. bhāti : [+ V]
(shines) [O, (I) —]
64. bhīksate : [+ V]
(begs) [A, O, (SO) —]
65. bhinatti : [+ V]
(cuts) [{ $\begin{smallmatrix} A \\ I \\ O \end{smallmatrix}$, O, (I) }]
66. bībhetī : [+ V]
(fears) [D, { $\begin{smallmatrix} R \\ O \end{smallmatrix}$ } —]
67. bhrjati : [+ V]
(fries) [A, (O)(F), (L), (I) —]
68. bhramati : [+ V]
(wanders, walks) [A, (L) —]
69. manyate [+ V]
(considers) [A, S —]
70. mantrayati : [+ V]
(advises) [A, R —]
71. mathnāti : [+ V]
(churns) [A, (F)(O), (I) —]
72. mātī : [V +]
(measures) [A, { $\begin{smallmatrix} O \\ R \end{smallmatrix}$ }, (I), (L) —]
73. milati [- V]
(comes together, joins) [A, R —]

88. *śaṅkate* : [+ V]
(doubts) [A, S —]
89. *śikṣate* : [+ V]
(learns) [A, (SO), O —]
90. *śete* : [+ V]
(sleeps) [A, (L) —]
91. *śṛṇoti* : [V, +]
(hears) [D, { R } —]
[O]
92. *siñcati* : [+ V]
(sprinkles) [A, O, (L) —]
93. *snāti* : [+ V]
(bathes) [A, (I), (L) —]
94. *sprśati* : [+ V]
(touches) [A, { O }
[R] (I) —]
95. *hanti* : [+ V]
(kills) [A, R, (I) —]
96. *hasati* : [+ V]
(laughs) [A —]
97. *hvaṇyati* : [+ V]
(calls) [A, R —]

V. 1. 3. In this section a list of rules is given. Section V. 1. 3. 1. contains the P(hrase) S(tructure) rules and section V. 1. 3. 2. specifies a selection of more important T(ransformational) rules.

V. 1. 3 1. P. S. rules :

- | | given | # | S | # |
|----|-------|---|----------------|------------|
| 1. | S | → | S ⁿ | ca ; n = 2 |
| 2. | S | → | M | P |

3. $P \longrightarrow V C_1 \dots C_n$
 $C_i = A/D/R/O/F/I/L/SO/GO/Ext/Pa/Es/T$
4. $C \longrightarrow \left\{ \begin{array}{l} NP+K \\ S^7 \end{array} \right. (+PP) \}$
5. $NP \longrightarrow NP^n \text{ ca saha : } n \geq 2$
6. $NP \longrightarrow N \left(\left\{ \begin{array}{l} S \\ D \\ O \end{array} \right\} \right)$
7. $N \longrightarrow CS$
8. $V \longrightarrow CS$
9. $M \longrightarrow (Tense)(Aspect)$
10. $Tense \longrightarrow \left\{ \begin{array}{l} \text{past} \\ \text{present} \\ \text{future} \\ \text{modal} \end{array} \right\}$
11. $Aspect \longrightarrow \left\{ \begin{array}{l} \text{perfective} \\ \text{progressive} \\ \text{modal} \end{array} \right\}$

V. 1. 3. 2. In this section some important T(ransformational) rules are specified.

T rules :

I Nominalisation-rule (optional)

$[X [M [V Y]] Z]$

S S P P S S

SD : 1 2 3 4 5

SC : 1 2 3 4 5

$\left[\begin{array}{l} +Nom. \\ \pm adj. \end{array} \right]$

-
7. Not all the cases may dominate S. However, the restrictions on embedding Ξ are not considered, as they are outside the scope of the present study

II M(odality)-deletion rule

	[W	[X	M	[V _{Nom}	Y ]	] Z]
	S	S		P	P	S S
SD :	1	2	3	4	5	6
SC :	1	2	∅	4	5	6

III Subjectivalisation-rule (optional)

	X	[	M	[	V	C	Y	]	]	Z
		S		P				P	S	
SD :	1		2		3	4	5			6
SC :	1		42		3	∅	5			6

conditions : 1. 4 = A/D/O/ES

or 2 if 4 = O/F/I/L which dominates
'svayameva' as well
then 5 ≠ C

or 3 if 4 = I and indicates a natural
phenomenon
then 5 ≠ A/D

IV. Copula-deletion rule (optional)

	X	[	C	M	[	Cop	Y	]	]	Z
		S			P			P	S	
SD	1		2	3		4	5			6
SC	1		2	3		∅	5			6

Conditions 1 M is [+ pres]

2 if Y = V_{Nom} it does not show the stem-
element 'at'

V Passivisation-rule (optional)

	X	[	M	[	V	C	Y	]	]	Z
		S		P				P	S	
SD :	1		2		3	4	5			6
SC : (a)	1		42		3	∅	5			6

- conditions : 1. 4=R/F/O (and GO when V dominates a synonym of 'yā' (ti))
 2. 5=A/D (or I indicating a natural phenomenon)

elsewhere : SC : (b)

SC : (b)	1	∅	3+2	4	5	6
			+yā			

VI : M(odality)-attachment rule

	W	[	X	M	[	V	Y	]	]	Z
		S			P			P	S	
SD :	1		2	3		4	5			6
SC :	1		2	∅		4+3	5			6

(this rule follows Affix-substitution rule which is not given here)

VI

CONCLUSION

VI This chapter sums up those points of interest in FCG which have arisen in the analysis of the foregoing chapters

VI 1 As mentioned earlier (I 2 1 3 5, I 2 1 3 6), FCG holds that a case-system could be accepted as a linguistic universal. Unless a large number of languages is investigated from this point of view, nothing in this connection can be attested conclusively. At the present stage of research there appears to be insufficient evidence for or against this position.

VI 2 According to FCG cases are syntactically justified semantic primitives.¹

The cases that have been discussed in Chapter I, are distinguished from each other on syntactic as well as semantic criteria. However, the distinction between A and D is motivated by syntactic consideration only (II 1 1).

In so far as the semantic justification for cases is concerned, O appears to pose a problem. Its definition remains imprecise and its use as a 'waste basket'² implies that there is some element of indeterminacy in the specification of this case category.

1 Fillmore C. J., (1968a), p. 5 cases are 'semantically relevant syntactic relationships' and (1971) p. 254 'deep structure cases could be discovered and justified by syntactic criteria', pp. 246-247 also. It appears that Robinson J. J. (1969) is not correct when she says that in FCG cases are syntactic primitives (p. 62).

2. Fillmore C. J., (1971), p. 251

Again, there are certain constructions in which a case-category (e.g. O/I) is not consistent in its syntactic behaviour (e. g. in relation to the process of passivisation : II. 2. 1. 3. 1., II. 2. 1. 3. 2., II. 3. 2. 2.). This inconsistency may be accounted for by certain features on the lexical items or the lexical items themselves. However, it indicates that the cases by themselves are not adequate. If ad hoc features need to be specified then the major justification for cases seems to disappear.

In certain constructions (II. 4. 7. 2.), there is semantic distinction between surface-realizations of the same case-category. There appears no way to account for this except in terms of their morphological characteristics.

VI. 3. The proposal of FCG that 'case-form' or 'surface-cases' are language-specific and may be realised by different syntactic devices like inflexion, pre-/post-positions, word-order, (which is, of course, mentioned by others as well (I. 1. 4., f. n. 28)) appears to be correct.

VI. 4. FCG maintains that there is one occurrence of a case in a simple sentence. But there are instances where this principle breaks down.

Cases like L and Pa (II. 4. 4, II. 4. 8.) appear to go against this principle of 'one-instance-per-clause'. The case-category I, indicating emotive states also, poses difficulty (II. 3. 4.) as there are simple sentences which allow two occurrences of I. Even the proposal of deriving such I's from superordinate structure does not help.

To get round the above problem, it is suggested that this non-application of the principle may be considered specific to L, Pa and I.

VI. 5. The position of FCG that relationships involving subject and object are surface-phenomena, appears

to be correct and no problem with regard to it, has arisen in this analysis

VI 6 In addition to the above (VI 1 VI 5), there are a few points that need to be mentioned

VI 6 1 In the case of NP asti NP constructions (Chapter III), Es and T appear to be different from other case categories, with regard to case specification (III 1 1, III 1 2)

VI 6 2 Lastly, in so far as the descriptive adequacy of FCG (I 2 1 3 1) is concerned, the analysis in the foregoing chapters, is an insufficient evidence for saying anything conclusive. However, FCG appears to be observationally adequate for the description of the Sanskrit language

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INDEX

- Ablative • 6
 - inflexion 125, 126
- Accent • 22
- Accusative 6, 17
- Affix substitution 30, 32, 50, 190
- Agentive 16, 24, 25, 26, 34, 44, 119, 136
 - Alienable 196, 214, 216
 - relation 247
 - relationship 241
- Bach, E , 159, 168, 169
- Base component 14, 15, 20, 225, 256
 - structure : 14
- Benefactive 18, 40, 135, 136
- Benfey, T., 5
- Bennett, D C , • 112
- Bhartṛhari 4, 193
- Bhasā 2
- Bhattojḍikṣita 4
- Body part • 228, 230, 239, 242
 - relation 246
- Bopp, F. • 5
- Carey, W 4
- Case 1, 9, 11, 12, 14, 16 21
 - categories 18, 20, 24
 - form 5, 21 270
 - frame 19, 258, 259
 - inflexion 5, 6, 9, 16
 - system 11, 21
- Categorical component 8, 20, 255
- Category feature 257
- Category of case 5
- Centrality of syntax 13
 - handas 2
- Chomsky, N 1, 8, 12, 15 106, 166, 167, 169, 255
- Cognates 74
- Cognate objects 24, 43, 70, 71, 74, 75, 76, 77
- Comitative 18, 19
- Competence - 13, 23
- Componential analysis 128
- Concatenation system 8, 14
- Constitutency analysis 8
- Context free 255
- Contextual features 255, 257
- Coordination 116
- Copula-deletion 167, 182 185, 190, 267
- Copulative 145, 147, 148
- Copying rule 72
- Co referential 126
- Counter agent 17
- Covert categories 14
- Dative • 6, 16, 24, 25, 26, 34, 37, 38, 119
 - inflexion 133, 136
- Deepstructure : 14, 15 , 19
- Delberuck • 7
- Delegative 135, 136
- Deletability of object 76
- Deletable object 76
- Descriptive 12
 - adequacy 12, 13, 15, 271
- Directional 111
 - indicator 241
- Dynamic • 111
- Edgren, H 6
- Emotive State 98

- Essive 18, 148, 149, 150, 151, 152, 153, 154, 157, 158, 160
 Evaluation procedure 12
 Existential 145, 147, 148
 Experiencer 16, 24, 36, 37, 38, 40, 44
 Explanatory adequacy 4
 Extent 18, 24, 111, 136, 137, 140, 142, 157
 Factitive 17 24, 43, 69, 70, 71, 75, 76, 77, 68, 79, 160
 Faddegon, B 7
 Force 95
 Functions of cases 6
 Genitive 6, 9, 157, 158, 192, 195, 198, 214, 215, 239, 240, 241, 246, 247
 constructions 9
 Goal 18, 24, 40, 70, 110, 111, 130, 131, 132
 Gonda J 7
 Halliday, M A K 14
 Harris, J, 5
 Hjelmslev 12
 Hypercase 142, 143, 144
 Inalienable - 96, 115, 117, 196, 214, 216, 239
 relation 241, 246
 relationship 128, 244
 Inanimate force 17
 Inflexion 11, 21, 270
 Inherent features 258
 Instrumental 6, 17, 24 79, 83 91, 97, 100, 103, 107, 108, 110
 adverbial 106
 Intentional involvement 42, 45, 99 108, 110
 Intentionality 42
 Non 42
 Interpretation,
 accidental 109, 110
 purposive 109, 110
 Intonational pattern 22
 Intransitive verb 76
 Jones, W 4
 Karaka 9
 Kasus 16
 Katyayana 3
 Kinship 230, 239, 246
 Kiparsky, P 7, 9, 194
 Lahiri, P C. 8
 Lakoff, G 106, 107, 108, 109
 Language classical 1, 2
 Sanskrit 1, 2, 4, 5
 specific 14, 22
 universal 14
 Lexicon 14, 20, 255, 256
 Location 18, 112
 Locational 148
 Locative 18, 24, 110, 111, 115, 116, 148, 156
 spatial 111, 113
 temporal 111, 113
 Local function 111
 Locational reference 219
 Lyons, J 14
 Macdonell, A A 4, 6
 Modality 15
 attachment rule 268
 deletion rule 190, 267
 Monier Williams, M 6
 Multiple self embedding 114
 Natural force 95, 96, 97
 phenomena 96
 Node pruning rule 175, 180, 183, 186
 Nominal 5

- Nominal derived 197
 gerundive 197
 sentence 145
 Nominalisation 77, 170, 177
 rule 173, 174, 179, 189, 266
 Nominative 6
 Non intentional involvement 41,
 42, 99, 108, 110
 Non stative verb 34, 42
 Notion of cases 10, 11
 Noun 5, 15
 phrase 15, 21

 Object 17, 21, 256, 270
 case 18
 Objective 17, 24, 43, 45, 46, 47,
 77, 78
 Observationally adequate 271

 Panini 2, 3, 4, 5, 7, 9, 192, 193
 Perry, F. D. 6
 Part whole 228
 relation 239, 240, 244, 246
 Passivisation 25 39
 Process of 26, 31, 36, 46,
 61, 64, 65, 67, 83, 90,
 rule 267
 without subjectivisation 27
 27, 57, 83
 Patanjali 3 163
 Path 18, 110, 111, 114, 142
 P-deletion 184, 190
 Performance 33
 Performative analysis 242
 Phrase 15
 structure 19
 structure rule 255, 265
 Place 112, 114
 Possession,
 alienable 196, 216, 217
 inalienable 196 217
 Possessive 214

 Post Position 16, 21, 53, 58,
 60, 67
 deletion 90
 P raising rule 175, 180, 183, 190
 Predicate 5
 Predicator 17
 Pre verb 91, 118
 Pre/Post Position 61, 21, 270
 Proposition 15

 Ramcandra 4
 Receptive 18, 24, 34, 35, 36, 41, 46
 Referential 79
 Restrictions of co occurrence 255
 Result 17, 43, 69, 70
 Resultative 78
 non 78
 Rewriting rules 255
 Ross, J. R., 243

 Sanskrit 8
 grammar 6
 syntax 6, 7, 9
 syntactic structure 1
 Sasthi 192
 Śeṣa kāraka 193
 Schema 117, 128, 132, 196, 207,
 227, 239, 240, 241, 243, 258
 Scrambling 29, 50
 Selectional restrictions 14, 20,
 160, 255, 256
 Sense
 accidental 108
 purposive 108
 Sentence types 13
 Sentential derivation 240, 241,
 247
 Sequence free 15
 Sequential ordering 15
 Sentence embedding 20
 Source 18 24, 110, 111 120,
 122 123 125, 127, 128, 129

- Space : 111
 Speijer, J. S. : 6
 Staal, J. F. : 7, 8, 9, 194
 Stative : 42
 Strict categorisation rules : 256
 sub-categorisation rules : 20, 255
 Strings of formatives : 13
 Subanta : 162
 Subject : 21, 256, 270
 Subjectivisation : 26, 35, 39, 46, 55, 119
 rule : 26, 27, 28, 29, 35, 36, 38, 39, 49, 58, 189, 267
 Superordinate constunction : 96, 98, 143, 144, 242, 270
 Surface case : 17, 21
 phenomenon : 15, 20, 21
 structure : 11, 14, 15, 19
 Syntax : 12
 System, Set : 8
 Systematic transcription : 23
 Terminative : 112
 Time 18, 111, 112
 TiNanta : 162, 173
 Transformational generative grammar : 12, 21
 rules : 266
 Translative : 18, 76, 148, 152, 153, 154, 158, 160
Universal : 12, 22
 Utterance types : 13
 Vākya : 162
 Vāmana Jayāditya : 4
 Vedic language : 1
 sanskrit : 1, 2
 Verb : 15, 17
 Vocative : 6
 Whitney, W. D. : 5
 Wilkins, C. : 5
 Wilson, H. H. : 6
 Word-order : 8, 9, 270
 Yāska : 3